

Southern U.S. Business Unit  
Domestic Production



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

June 21, 2001

JUN 25 2001

Oil Conservation Division  
Attn: Mr. Michael E. Stogner  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Indian Hills Unit Well No. 1 Unorthodox Location

Mr. Stogner:

This letter is being sent per our phone conversation of June 13, 2001. As we discussed, the Indian Hills Unit Well No. 1, API No. 30-015-10066, was drilled and completed in June, 1963. The location was originally surveyed November 21, 1962, by Joe Hewitt, Jr., at 660' FSL and 660' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico, please see attached copy of Form C-128. The well was plugged and the location abandoned in August, 1992. A decision was made to re-enter this well so the location was re-surveyed by Mr. Ronald J. Eidson, of John West Engineering, on November 4, 1997, see attached copy of Form C-102. According to information obtained from Mr. Eidson, the original survey of this area was done in 1882. The Federal Government ordered a re-survey of this area which was conducted from November 16, 1966 to January 12, 1967. Mr. Eidson said it took the surveyors two months to re-survey Section 21 and, in the process, the corners of this section were moved. Due to this re-survey, the legal description for this location is now 416' FSL and 176' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico.

No application for an unorthodox location was ever filed after the re-survey or prior to the recompletion of this well. Please determine if such an application is required considering the circumstances. Thank you for your help in this matter and for taking the time to answer my questions last week when we spoke on the phone.

Sincerely,

A handwritten signature in cursive script that reads 'Ginny Larke'.

Ginny Larke  
Engineer Technician

Attachments

NUMBER OF COPIES RECEIVED	
DISTRIBUTION	
PART A FE	
FILE	
U.S.G.S.	
LAND OFFICE	
TRANSPORTER	OIL GAS
PRODUCTION OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

FORM 6312  
REVISED 5/1/57

WELL LOCATION AND ACREAGE DEDICATION PLAT

SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

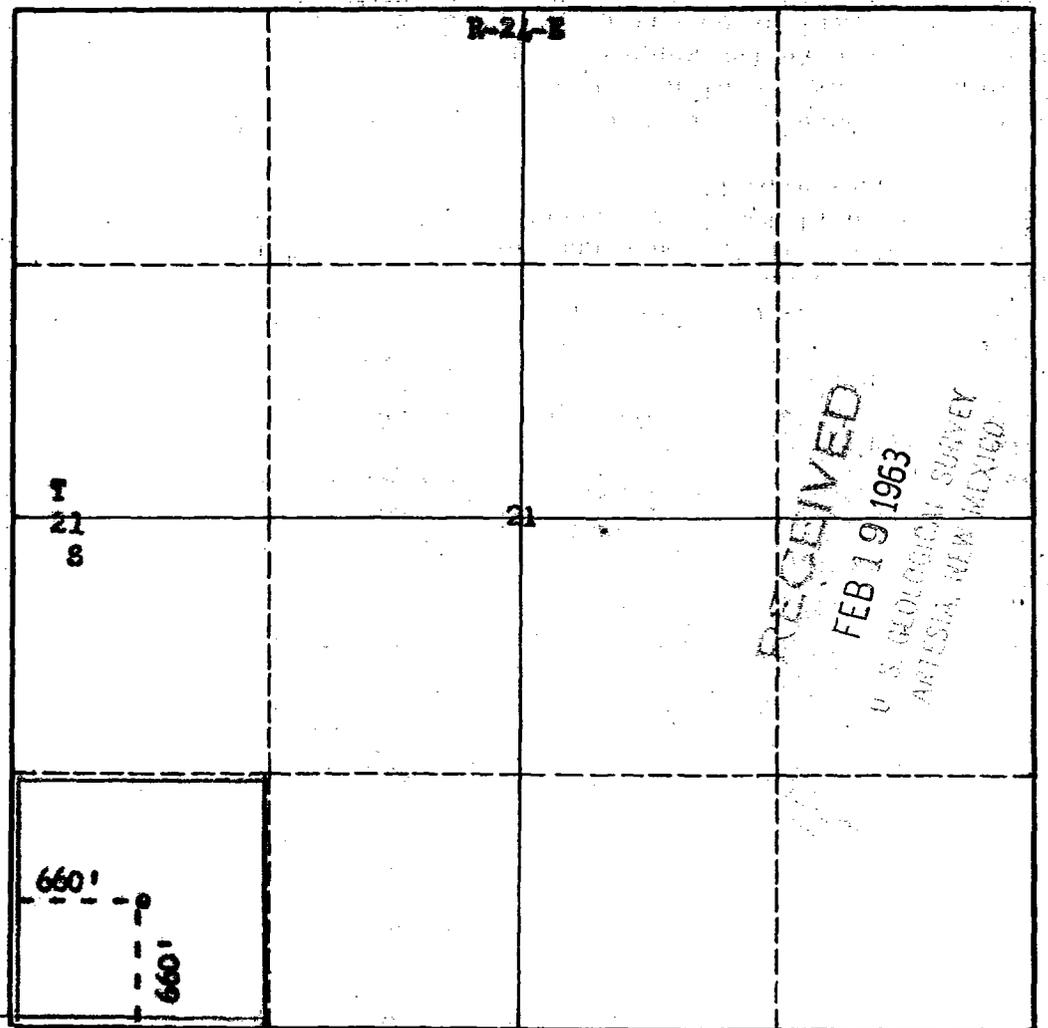
SECTION A

Operator <b>Ralph Lowe</b>		Lease <b>Indian Hills Unit</b>		Well No. <b>1</b>
Unit Letter <b>M</b>	Section <b>21</b>	Township <b>T-21-S</b>	Range <b>R-21-E</b>	County <b>Socorro</b>
Actual Footage Location of Well: <b>660</b> feet from the <b>South</b> line and <b>660</b> feet from the <b>West</b> line				
Ground Level Elev. <b>3704</b>	Producing Formation <b>Wildcat</b>		Dedicated Acreage: <b>40</b> Acres	

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES  NO . ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1935 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES  NO . If answer is "yes," Type of Consolidation \_\_\_\_\_
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

SECTION B



CERTIFICATION

I hereby certify that the information in SECTION A above is true and complete to the best of my knowledge and belief.

*C. W. Murray*  
Name **C. W. Murray**  
Position **Agent**  
Company **RALPH LOWE**  
Date **February 16, 1963**

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed **November 21, 1962**  
Registered Professional Engineer and/or Land Surveyor  
*Joe J. Heilbrunn*  
Certificate No. **3280**

RECEIVED  
FEB 19 1963  
U.S. GEOLOGICAL SURVEY  
ARTESIAN NEW MEXICO

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name INDIAN HILLS UNIT	Well Number 1
OGRID No.	Operator Name MARATHON OIL COMPANY	Elevation 3670

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	21	21 S	24 E		416	SOUTH	176	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p><b>OPERATOR CERTIFICATION</b></p> <p><i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Title _____</p> <p>Date _____</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>NOVEMBER 4, 1997</p> <p>Date Surveyed _____ DMCC</p> <p>Signature &amp; Seal of Professional Surveyor _____</p> <p><i>Ronald J. Eidson</i> 11-07-97 97-11-1748</p>
	<p>Certificate No. JOHN W. WEST 676 RONALD J. EIDSON 3239 GARY EIDSON 12641</p>

*See Also Order Nos.*

*R-9922*

*R-9922-A*

*R-9922-B*

*R-9922-C*

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED  
BY THE OIL CONSERVATION DIVISION  
FOR THE PURPOSE OF CONSIDERING:

**NOMENCLATURE**  
CASE NO. 12006  
ORDER NO. R-9922-D

APPLICATION OF MARATHON OIL COMPANY, YATES PETROLEUM CORPORATION, ORYX ENERGY COMPANY, DEVON ENERGY CORPORATION (NEVADA) AND SANTA FE ENERGY RESOURCES, INC. FOR THE EXPANSION OF THE INDIAN BASIN-UPPER PENNSYLVANIAN ASSOCIATED POOL AND THE CONCOMITANT CONTRACTION OF THE INDIAN BASIN-UPPER PENNSYLVANIAN GAS POOL, APPROVAL OF FOUR NON-STANDARD 320-ACRE GAS PRORATION UNITS, AN UNORTHODOX GAS WELL LOCATION, AND APPORTIONMENT OF GAS ALLOWABLES, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on July 9, 1998, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 7th day of December, 1998, the Division Director, having considered the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.

(2) The Indian Basin-Upper Pennsylvanian Gas Pool is a prorated gas pool currently governed by the "General Rules for the Prorated Gas Pools of New Mexico/Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Gas Pool," as promulgated by Division Order No. R-8170, as amended, which require standard 640-acre spacing and proration units ("GPU") with wells to be located no closer than 1650 feet from the outer boundary of the GPU nor closer than 330 feet from any governmental quarter-quarter section line or subdivision inner boundary. The current gas allowable for the Indian Basin-Upper Pennsylvanian Gas Pool is approximately 6.5 MMCFG per day per GPU.

(3) The Indian Basin-Upper Pennsylvanian (Prorated) Gas Pool currently comprises the following described area in Eddy County, New Mexico:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM

Section 3:	W/2
Section 4:	All
Sections 8 and 9:	All
Section 10:	W/2
Section 15:	W/2
Sections 16 through 30:	All
Sections 32 through 36:	All

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Sections 19 through 21:	All
Sections 28 through 32:	All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM

Sections 1 through 5:	All
Sections 8 through 17:	All
Section 21:	N/2
Section 22:	All.

(4) The Indian Basin-Upper Pennsylvanian Associated Pool is currently governed by the "Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool," as promulgated by Division Order No. R-9922, as amended, which require standard 320-acre oil and gas spacing units with wells to be located no closer than 660 feet from the outer boundary of the proration unit nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary, and with no more than one well per 80-acre tract to be drilled or produced on a standard proration unit. The special depth bracket allowable for the pool is 1,400 barrels of oil per day. The limiting gas-oil ratio for the pool is 7,000 cubic feet of gas per barrel of oil, which results in a casinghead gas allowable of 9.8 MMCFG per day.

(5) The Indian Basin-Upper Pennsylvanian Associated Pool currently comprises the following described area in Eddy County, New Mexico:

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Section 27:	S/2
Sections 33 and 34:	All.

TOWNSHIP 22 SOUTH, RANGE 24 EAST, NMPM

Sections 2 through 10: All  
Section 11: N/2  
Sections 16 and 17: All.

(6) The applicants, Marathon Oil Company, Yates Petroleum Corporation, Oryx Energy Company, Devon Energy Corporation (Nevada), and Santa Fe Energy Resources, Inc. seek an order expanding the Indian Basin-Upper Pennsylvanian Associated Pool in Eddy County, New Mexico to include:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM

Section 36: E/2

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Sections 20 and 21: All  
Sections 28 through 32: All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM

Section 1: E/2  
Section 12: E/2  
Section 13: E/2

TOWNSHIP 22 SOUTH, RANGE 24 EAST, NMPM

Section 18: All

AND THE concomitant contraction of the Indian Basin-Upper Pennsylvanian Gas Pool by deleting therefrom:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM

Section 36: E/2

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Sections 20 and 21: All  
Sections 28 through 32: All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM

Section 1: E/2  
Section 12: E/2  
Section 13: E/2.

(7) In conjunction with the proposed adjustment to the boundaries of the two subject pools, the applicants seek to establish the following four 320-acre, more or less, GPU's within the Indian Basin-Upper Pennsylvanian Gas Pool within Section 36, Township 21 South, Range 23 East, NMPM, and Sections 1, 12, and 13, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico:

(A) the W/2 of Section 36, comprising 320 acres, which is to be dedicated to the existing Lowe State Gas Com Well No. 1 (API No. 30-015-10342), located 1995 feet from the North line and 1712 feet from the West line (Unit F) of Section 36;

(B) the W/2 equivalent of Section 1, comprising 336.57 acres, on which there is currently no well;

(C) the W/2 of Section 12, comprising 320 acres, which is to be dedicated to the existing Smith Federal Gas Com Well No. 2 (API No. 30-015-26834) located 2049 feet from the North line and 480 feet from the West line (Unit E) of Section 12; and

(D) the W/2 of Section 13, comprising 320 acres, which is to be dedicated to the HOC Federal Gas Com Well No. 2 (API No. 30-015-26939) located 330 feet from the North and West lines (Unit D) of Section 13.

(8) The proposed acreage and pool rededication results in the Lowe State Gas Com Well No. 1 being only 928 feet from the outer boundary of its newly designated 320-acre gas proration unit. The resulting unorthodox gas well location for this well requires proper authorization pursuant to the appropriate rules and regulations governing the Indian Basin-Upper Pennsylvanian Gas Pool.

(9) On behalf of the applicants, Marathon Oil Company presented geologic, petroleum engineering, and oil and gas mineral ownership and land evidence, which demonstrates that this application should be granted and which is summarized as follows:

(A) In the Indian Basin area, the Upper Pennsylvanian interval contains multiple compartmentalized reservoirs, which are productive of oil, gas and water from several dolomitized horizons from the top of the Cisco formation to

the base of the Canyon formation.

(B) The Cisco/Canyon formations within the Indian Basin-Upper Pennsylvanian Gas Pool, including the extension area, and the Indian Basin-Upper Pennsylvanian Associated Pool were originally developed with flowing gas wells on 640-acre gas spacing such that, once the gas wells stopped flowing as a result of water encroachment, the wells were abandoned.

(C) The Indian Basin-Upper Pennsylvanian Gas Pool attained its maximum extension in the 1970s and, since then, water encroachment has advanced from east to west slowly watering out the flowing gas wells. Currently, flowing gas production occurs west of a structural contour line at minus 3300 feet subsea elevation.

(D) In 1992, Yates Petroleum Corporation reentered and recompleted the Hickory "ALV" Federal Well No 1 (API No. 30-015-10566), located 1650 feet from the North and West lines (Unit F) of Section 17, Township 22 South, Range 24 East, NMPM. Using the same high capacity pumps used in the nearby South Dagger Draw-Upper Pennsylvanian Associated Pool, Yates was able to achieve rates of 400 BOPD, 500 MCFGPD and 1200 BWPD in a former Indian Basin-Upper Pennsylvanian Gas Pool well which had previously been depleted. Thereafter the Division entered Order No. R-9922 and created the Indian Basin-Upper Pennsylvanian Associated Pool.

(E) The Cisco/Canyon formations within the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area are in a structural feature separated from the Indian Basin-Upper Pennsylvanian Gas Pool by a structural saddle at the top of the Cisco at a subsea elevation of minus 3500 feet. New wells located within 320-acre spacing units in the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area are now producing or have the potential to produce oil and gas that was not previously recovered when this area was originally developed as part of the Indian Basin-Upper Pennsylvanian Gas Pool.

(F) Current oil and gas production from the Cisco/Canyon formations in the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area required extensive formation "de-watering." Hydrocarbons are mobilized by continuous movement of large volumes of water with artificial lift.

(G) Pressure data demonstrates that:

(i) the Indian Basin-Upper Pennsylvanian Associated Pool, with a pressure on average of 1600 psi, is not in pressure communication with the Indian Basin-Upper Pennsylvanian Gas Pool, which has a current pressure on average of 500 psi; and

(ii) wells in the extension area of Township 21 South, Range 24 East, NMPM, have a pressure related to the Indian Basin-Upper Pennsylvanian Associated Pool.

(H) Production data demonstrates that:

(i) there are no flowing gas wells in the extension area; and

(ii) old flowing gas wells in the extension area were abandoned when they watered out and new wells are attaining oil and gas production by using high capacity pumps.

(I) The division of Section 36, Township 21 South, Range 23 East, NMPM and Sections 1, 12, and 13, Township 22 South, Range 23 East, NMPM (the transition area) into non-standard 320-acre, more or less, gas proration and spacing units will provide an equitable "buffer" between the Indian Basin-Upper Pennsylvanian Gas Pool and the Indian Basin-Upper Pennsylvanian Associated Pool because:

(i) wells have been located or can be located such that drainage by wells in the Indian Basin-Upper Pennsylvanian Associated Pool can be met with counter drainage from wells located or to be located on the eastern side of each of the four 320-acre, more or less, non-standard gas spacing and proration units in the Indian Basin-Upper Pennsylvanian Gas Pool provided that wells located on the eastern side of these units can be no closer than 660 feet from the eastern boundary, which is also the setback requirement for wells in the Indian Basin-Upper Pennsylvanian Associated Pool; and

(ii) wells located in the Indian Basin-Upper Pennsylvanian Gas Pool will not suffer unfair competition from wells located or to be located in these four, non-standard gas proration units because allowables will be apportioned based upon the gas proration system adopted for the Indian Basin-Upper Pennsylvanian Gas Pool.

(J) The granting of this application should not impair the correlative rights:

(i) of any working interest owner within any of the existing 640-acre GPUs because there are voluntary joint operating agreements requiring that all those owners continue to share in production and pay costs from the new 320-acre spacing units on the same proportional basis as in the original 640-acre unit;

(ii) of any overriding royalty interest owner or the federal royalty under a federal oil and gas lease within any of the existing 640-

acre GPUs because there are federal communitization agreements requiring that all those owners continue to share in production from the new 320-acre spacing units on the same proportional basis as in the original 640-acre unit;

(iii) under Section 32, Township 21 South, Range 24 East, NMPM, which consists of two 320-acre State of New Mexico leases and is operated by Marathon Oil Company, because there are no overriding royalty owners and the State Land Office desires that the communitization agreement for the existing 640-acre proration unit terminate and be replaced by two 320-acre proration units co-extensive with the two State leases; and,

(iv) under Section 36, Township 21 South, Range 23 East, NMPM, which consists of two State of New Mexico leases and is operated by ORYX Energy Company, because there are no overriding royalty owners and the State Land Office desires that the existing 640-acre communitization agreement terminate and be replaced by two 320-acre communitization agreements.

(10) The evidence and testimony presented at the hearing further indicate that:

(A) The Cisco/Canyon formations within the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area are a single structural feature such that wells located in this area should be subject to the same special rules and regulations.

(B) Geologic and petroleum engineering evidence demonstrate that substantial volumes of oil and gas, which otherwise would not be produced, can be economically recovered from the extension area if that area is subject to the

current rules applicable to the Indian Basin-Upper Pennsylvanian Associated Pool, thereby preventing waste.

(C) Making the extension area part of the Indian Basin-Upper Pennsylvanian Associated Pool will afford the opportunity to increase the de-watering process in the reservoir and improve recovery efficiencies for both oil and gas.

(D) The adoption of the four 320-acre, more or less, non-standard gas proration and spacing units will establish a temporary "buffer" or transition area between the Indian Basin-Upper Pennsylvanian Gas Pool and the Indian Basin-Upper Pennsylvanian Associated Pool, which at this time will establish equity and protect correlative rights.

(11) The applicants are all of the operators of wells in the extension area and they have met and unanimously agreed upon this application.

(12) In accordance with Division notification rules, notification of this application and request for hearing has been sent to the owners within the proposed expansion area and to the offset operators to each non-standard gas proration and spacing unit and no objections have been received by either the Division or Marathon Oil Company, which sent out these notices.

(13) In order to prevent waste, to prevent the drilling of unnecessary wells, to protect correlative rights and provide for a more orderly development of the Cisco/Canyon formations, it is necessary to do the following:

(A) contract the Indian Basin-Upper Pennsylvanian Gas Pool and expand the Indian Basin-Upper Pennsylvanian Associated Pool as described in Finding Paragraph No. 6;

(B) approve the four non-standard 320-acre, more or less, GPU's within the Indian Basin-Upper Pennsylvanian Gas Pool as described in Finding Paragraph No. 7; and,

(C) approve an unorthodox gas well location for the Lowe State Gas Com Well No. 1 located 1995 feet from the North line and 1712 feet from the West line (Unit K) of said Section

36.

(14) Marathon Oil Company, Santa Fe Energy Resources, Inc. and ORYX Energy Corporation were present at the hearing and Marathon Oil Company, on behalf of the applicants, provided technical land, geologic and engineering testimony concerning the reservoir and, these pools.

(15) No other operator and/or interest owner appeared at the hearing in opposition to the application.

(16) Approval of the applicant's request will allow the interest owners the opportunity to economically recover their share of the oil and gas in the subject pools, will not reduce ultimate recovery from the subject pools, and will not violate correlative rights.

**IT IS THEREFORE ORDERED THAT:**

(1) The Indian Basin-Upper Pennsylvanian Gas Pool in Eddy County, New Mexico, as heretofore classified, defined, and described, is hereby contracted by the deletion of the following described area:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM  
Section 36: E/2

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM  
Sections 20 and 21: All  
Sections 28 through 32: All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM  
Section 1: E/2  
Section 12: E/2  
Section 13: E/2.

(2) Concomitantly, the Indian Basin-Upper Pennsylvanian Associated Pool in Eddy County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein the following described area:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM  
Section 36: E/2

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Sections 20 and 21: All  
Sections 28 through 32: All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM

Section 1: E/2  
Section 12: E/2  
Section 13: E/2.

TOWNSHIP 22 SOUTH, RANGE 24 EAST, NMPM

Section 18: All.

(3) The following four 320-acre, more or less, GPU's within the Indian Basin-Upper Pennsylvanian Gas Pool within Section 36, Township 21 South, Range 23 East, and Sections 1, 12, and 13, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico, are hereby approved:

(A) the W/2 of Section 36, comprising 320 acres, which is to be dedicated to the existing Lowe State Gas Com Well No. 1 (API No. 30-015-10342), located at an unorthodox gas well location for the 320-acre GPU, 1995 feet from the North line and 1712 feet from the West line (Unit F) of Section 36;

(B) the W/2 of Section 1, comprising 336.57 acres, on which there is currently no well;

(C) the W/2 of Section 12, comprising 320 acres, which is to be dedicated to the existing Smith Federal Gas Com Well No. 2 (API No. 30-015-26834) located 2049 feet from the North and 480 feet from the West lines (Unit E) of Section 12; and,

(D) the W/2 of Section 13, comprising 320 acres, which is to be dedicated to the HOC Federal Gas Com Well No. 2 (API No. 30-015-26939) located 330 feet from the North line and 330 feet from the West line (Unit D) of Section 13.

(4) Any future well located in any of these four non-standard gas proration and spacing units no closer than 660 feet to the eastern boundary of the unit shall be considered

to be at a standard location.

(5) The apportionment of gas allowables for the four non-standard GPU's shall be accomplished by applying a 0.5 acreage factor to each of the non-standard GPU's.

(6) An unorthodox gas well location for the following well in the Indian Basin-Upper Pennsylvanian Gas Pool, which became unorthodox as a result of the change in pool boundary, is hereby approved: Lowe State Gas Com Well No. 1 located 1995 feet from the North line and 1712 feet from the West line and of Section 36, Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico.

(7) The locations of all wells presently drilling to or completed in the Indian Basin-Upper Pennsylvanian Associated Pool within this expansion area are hereby approved; the operator of any well having an unorthodox location shall notify the Artesia District Office of the Division in writing of the name and location of the well within thirty days from the date of this order.

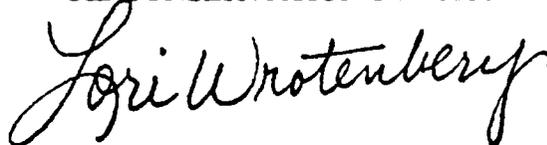
(8) Pursuant to Paragraph A of Section 70-2-18, NMSA (1978), contained in Chapter 271, Laws of 1969, existing wells in the Indian Basin-Upper Pennsylvanian Associated Pool within this expansion area shall have dedicated thereto 320 acres; or, pursuant to Paragraph C of Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

(9) Failure to file new Forms C-102 with the Division dedicating 320 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to being shut-in.

(10) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



LORI WROTENBERY  
Director

SEAL

*See Also Order Nos.*

*R-9922*

*R-9922-A*

*R-9922-B*

*R-9922-C*

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED  
BY THE OIL CONSERVATION DIVISION  
FOR THE PURPOSE OF CONSIDERING:

*NOMENCLATURE*  
*CASE NO. 12006*  
*ORDER NO. R-9922-D*

APPLICATION OF MARATHON OIL COMPANY, YATES PETROLEUM CORPORATION, ORYX ENERGY COMPANY, DEVON ENERGY CORPORATION (NEVADA) AND SANTA FE ENERGY RESOURCES, INC. FOR THE EXPANSION OF THE INDIAN BASIN-UPPER PENNSYLVANIAN ASSOCIATED POOL AND THE CONCOMITANT CONTRACTION OF THE INDIAN BASIN-UPPER PENNSYLVANIAN GAS POOL, APPROVAL OF FOUR NON-STANDARD 320-ACRE GAS PRORATION UNITS, AN UNORTHODOX GAS WELL LOCATION, AND APPORTIONMENT OF GAS ALLOWABLES, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on July 9, 1998, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 7th day of December, 1998, the Division Director, having considered the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.

(2) The Indian Basin-Upper Pennsylvanian Gas Pool is a prorated gas pool currently governed by the "General Rules for the Prorated Gas Pools of New Mexico/Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Gas Pool," as promulgated by Division Order No. R-8170, as amended, which require standard 640-acre spacing and proration units ("GPU") with wells to be located no closer than 1650 feet from the outer boundary of the GPU nor closer than 330 feet from any governmental quarter-quarter section line or subdivision inner boundary. The current gas allowable for the Indian Basin-Upper Pennsylvanian Gas Pool is approximately 6.5 MMCFG per day per GPU.

(3) The Indian Basin-Upper Pennsylvanian (Prorated) Gas Pool currently comprises the following described area in Eddy County, New Mexico:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM

Section 3:	W/2
Section 4:	All
Sections 8 and 9:	All
Section 10:	W/2
Section 15:	W/2
Sections 16 through 30:	All
Sections 32 through 36:	All

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Sections 19 through 21:	All
Sections 28 through 32:	All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM

Sections 1 through 5:	All
Sections 8 through 17:	All
Section 21:	N/2
Section 22:	All.

(4) The Indian Basin-Upper Pennsylvanian Associated Pool is currently governed by the "*Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool*," as promulgated by Division Order No. R-9922, as amended, which require standard 320-acre oil and gas spacing units with wells to be located no closer than 660 feet from the outer boundary of the proration unit nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary, and with no more than one well per 80-acre tract to be drilled or produced on a standard proration unit. The special depth bracket allowable for the pool is 1,400 barrels of oil per day. The limiting gas-oil ratio for the pool is 7,000 cubic feet of gas per barrel of oil, which results in a casinghead gas allowable of 9.8 MMCFG per day.

(5) The Indian Basin-Upper Pennsylvanian Associated Pool currently comprises the following described area in Eddy County, New Mexico:

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Section 27:	S/2
Sections 33 and 34:	All.

TOWNSHIP 22 SOUTH, RANGE 24 EAST, NMPM

Sections 2 through 10: All  
Section 11: N/2  
Sections 16 and 17: All.

(6) The applicants, Marathon Oil Company, Yates Petroleum Corporation, Oryx Energy Company, Devon Energy Corporation (Nevada), and Santa Fe Energy Resources, Inc. seek an order expanding the Indian Basin-Upper Pennsylvanian Associated Pool in Eddy County, New Mexico to include:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM

Section 36: E/2

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Sections 20 and 21: All  
Sections 28 through 32: All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM

Section 1: E/2  
Section 12: E/2  
Section 13: E/2

TOWNSHIP 22 SOUTH, RANGE 24 EAST, NMPM

Section 18: All

AND THE concomitant contraction of the Indian Basin-Upper Pennsylvanian Gas Pool by deleting therefrom:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM

Section 36: E/2

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Sections 20 and 21: All  
Sections 28 through 32: All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM

Section 1: E/2  
Section 12: E/2  
Section 13: E/2.

(7) In conjunction with the proposed adjustment to the boundaries of the two subject pools, the applicants seek to establish the following four 320-acre, more or less, GPU's within the Indian Basin-Upper Pennsylvanian Gas Pool within Section 36, Township 21 South, Range 23 East, NMPM, and Sections 1, 12, and 13, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico:

(A) the W/2 of Section 36, comprising 320 acres, which is to be dedicated to the existing Lowe State Gas Com Well No. 1 (API No. 30-015-10342), located 1995 feet from the North line and 1712 feet from the West line (Unit F) of Section 36;

(B) the W/2 equivalent of Section 1, comprising 336.57 acres, on which there is currently no well;

(C) the W/2 of Section 12, comprising 320 acres, which is to be dedicated to the existing Smith Federal Gas Com Well No. 2 (API No. 30-015-26834) located 2049 feet from the North line and 480 feet from the West line (Unit E) of Section 12; and

(D) the W/2 of Section 13, comprising 320 acres, which is to be dedicated to the HOC Federal Gas Com Well No. 2 (API No. 30-015-26939) located 330 feet from the North and West lines (Unit D) of Section 13.

(8) The proposed acreage and pool rededication results in the Lowe State Gas Com Well No. 1 being only 928 feet from the outer boundary of its newly designated 320-acre gas proration unit. The resulting unorthodox gas well location for this well requires proper authorization pursuant to the appropriate rules and regulations governing the Indian Basin-Upper Pennsylvanian Gas Pool.

(9) On behalf of the applicants, Marathon Oil Company presented geologic, petroleum engineering, and oil and gas mineral ownership and land evidence, which demonstrates that this application should be granted and which is summarized as follows:

(A) In the Indian Basin area, the Upper Pennsylvanian interval contains multiple compartmentalized reservoirs, which are productive of oil, gas and water from several dolomitized horizons from the top of the Cisco formation to

the base of the Canyon formation.

(B) The Cisco/Canyon formations within the Indian Basin-Upper Pennsylvanian Gas Pool, including the extension area, and the Indian Basin-Upper Pennsylvanian Associated Pool were originally developed with flowing gas wells on 640-acre gas spacing such that, once the gas wells stopped flowing as a result of water encroachment, the wells were abandoned.

(C) The Indian Basin-Upper Pennsylvanian Gas Pool attained its maximum extension in the 1970s and, since then, water encroachment has advanced from east to west slowly watering out the flowing gas wells. Currently, flowing gas production occurs west of a structural contour line at minus 3300 feet subsea elevation.

(D) In 1992, Yates Petroleum Corporation reentered and recompleted the Hickory "ALV" Federal Well No 1 (API No. 30-015-10566), located 1650 feet from the North and West lines (Unit F) of Section 17, Township 22 South, Range 24 East, NMPM. Using the same high capacity pumps used in the nearby South Dagger Draw-Upper Pennsylvanian Associated Pool, Yates was able to achieve rates of 400 BOPD, 500 MCFGPD and 1200 BWPD in a former Indian Basin-Upper Pennsylvanian Gas Pool well which had previously been depleted. Thereafter the Division entered Order No. R-9922 and created the Indian Basin-Upper Pennsylvanian Associated Pool.

(E) The Cisco/Canyon formations within the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area are in a structural feature separated from the Indian Basin-Upper Pennsylvanian Gas Pool by a structural saddle at the top of the Cisco at a subsea elevation of minus 3500 feet. New wells located within 320-acre spacing units in the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area are now producing or have the potential to produce oil and gas that was not previously recovered when this area was originally developed as part of the Indian Basin-Upper Pennsylvanian Gas Pool.

(F) Current oil and gas production from the Cisco/Canyon formations in the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area required extensive formation "de-watering." Hydrocarbons are mobilized by continuous movement of large volumes of water with artificial lift.

(G) Pressure data demonstrates that:

(i) the Indian Basin-Upper Pennsylvanian Associated Pool, with a pressure on average of 1600 psi, is not in pressure communication with the Indian Basin-Upper Pennsylvanian Gas Pool, which has a current pressure on average of 500 psi; and

(ii) wells in the extension area of Township 21 South, Range 24 East, NMPM, have a pressure related to the Indian Basin-Upper Pennsylvanian Associated Pool.

(H) Production data demonstrates that:

(i) there are no flowing gas wells in the extension area; and

(ii) old flowing gas wells in the extension area were abandoned when they watered out and new wells are attaining oil and gas production by using high capacity pumps.

(I) The division of Section 36, Township 21 South, Range 23 East, NMPM and Sections 1, 12, and 13, Township 22 South, Range 23 East, NMPM (the transition area) into non-standard 320-acre, more or less, gas proration and spacing units will provide an equitable "buffer" between the Indian Basin-Upper Pennsylvanian Gas Pool and the Indian Basin-Upper Pennsylvanian Associated Pool because:

(i) wells have been located or can be located such that drainage by wells in the Indian Basin-Upper Pennsylvanian Associated Pool can be met with counter drainage from wells located or to be located on the eastern side of each of the four 320-acre, more or less, non-standard gas spacing and proration units in the Indian Basin-Upper Pennsylvanian Gas Pool provided that wells located on the eastern side of these units can be no closer than 660 feet from the eastern boundary, which is also the setback requirement for wells in the Indian Basin-Upper Pennsylvanian Associated Pool; and

(ii) wells located in the Indian Basin-Upper Pennsylvanian Gas Pool will not suffer unfair competition from wells located or to be located in these four, non-standard gas proration units because allowables will be apportioned based upon the gas proration system adopted for the Indian Basin-Upper Pennsylvanian Gas Pool.

(J) The granting of this application should not impair the correlative rights:

(i) of any working interest owner within any of the existing 640-acre GPUs because there are voluntary joint operating agreements requiring that all those owners continue to share in production and pay costs from the new 320-acre spacing units on the same proportional basis as in the original 640-acre unit;

(ii) of any overriding royalty interest owner or the federal royalty under a federal oil and gas lease within any of the existing 640-

acre GPUs because there are federal communitization agreements requiring that all those owners continue to share in production from the new 320-acre spacing units on the same proportional basis as in the original 640-acre unit;

(iii) under Section 32, Township 21 South, Range 24 East, NMPM, which consists of two 320-acre State of New Mexico leases and is operated by Marathon Oil Company, because there are no overriding royalty owners and the State Land Office desires that the communitization agreement for the existing 640-acre proration unit terminate and be replaced by two 320-acre proration units co-extensive with the two State leases; and,

(iv) under Section 36, Township 21 South, Range 23 East, NMPM, which consists of two State of New Mexico leases and is operated by ORYX Energy Company, because there are no overriding royalty owners and the State Land Office desires that the existing 640-acre communitization agreement terminate and be replaced by two 320-acre communitization agreements.

(10) The evidence and testimony presented at the hearing further indicate that:

(A) The Cisco/Canyon formations within the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area are a single structural feature such that wells located in this area should be subject to the same special rules and regulations.

(B) Geologic and petroleum engineering evidence demonstrate that substantial volumes of oil and gas, which otherwise would not be produced, can be economically recovered from the extension area if that area is subject to the

current rules applicable to the Indian Basin-Upper Pennsylvanian Associated Pool, thereby preventing waste.

(C) Making the extension area part of the Indian Basin-Upper Pennsylvanian Associated Pool will afford the opportunity to increase the de-watering process in the reservoir and improve recovery efficiencies for both oil and gas.

(D) The adoption of the four 320-acre, more or less, non-standard gas proration and spacing units will establish a temporary "buffer" or transition area between the Indian Basin-Upper Pennsylvanian Gas Pool and the Indian Basin-Upper Pennsylvanian Associated Pool, which at this time will establish equity and protect correlative rights.

(11) The applicants are all of the operators of wells in the extension area and they have met and unanimously agreed upon this application.

(12) In accordance with Division notification rules, notification of this application and request for hearing has been sent to the owners within the proposed expansion area and to the offset operators to each non-standard gas proration and spacing unit and no objections have been received by either the Division or Marathon Oil Company, which sent out these notices.

(13) In order to prevent waste, to prevent the drilling of unnecessary wells, to protect correlative rights and provide for a more orderly development of the Cisco/Canyon formations, it is necessary to do the following:

(A) contract the Indian Basin-Upper Pennsylvanian Gas Pool and expand the Indian Basin-Upper Pennsylvanian Associated Pool as described in Finding Paragraph No. 6;

(B) approve the four non-standard 320-acre, more or less, GPU's within the Indian Basin-Upper Pennsylvanian Gas Pool as described in Finding Paragraph No. 7; and,

(C) approve an unorthodox gas well location for the Lowe State Gas Com Well No. 1 located 1995 feet from the North line and 1712 feet from the West line (Unit K) of said Section

36.

(14) Marathon Oil Company, Santa Fe Energy Resources, Inc. and ORYX Energy Corporation were present at the hearing and Marathon Oil Company, on behalf of the applicants, provided technical land, geologic and engineering testimony concerning the reservoir and, these pools.

(15) No other operator and/or interest owner appeared at the hearing in opposition to the application.

(16) Approval of the applicant's request will allow the interest owners the opportunity to economically recover their share of the oil and gas in the subject pools, will not reduce ultimate recovery from the subject pools, and will not violate correlative rights.

**IT IS THEREFORE ORDERED THAT:**

(1) The Indian Basin-Upper Pennsylvanian Gas Pool in Eddy County, New Mexico, as heretofore classified, defined, and described, is hereby contracted by the deletion of the following described area:

**TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM**

Section 36: E/2

**TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM**

Sections 20 and 21: All

Sections 28 through 32: All

**TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM**

Section 1: E/2

Section 12: E/2

Section 13: E/2.

(2) Concomitantly, the Indian Basin-Upper Pennsylvanian Associated Pool in Eddy County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein the following described area:

**TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM**

Section 36: E/2

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Sections 20 and 21: All  
Sections 28 through 32: All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM

Section 1: E/2  
Section 12: E/2  
Section 13: E/2.

TOWNSHIP 22 SOUTH, RANGE 24 EAST, NMPM

Section 18: All.

(3) The following four 320-acre, more or less, GPU's within the Indian Basin-Upper Pennsylvanian Gas Pool within Section 36, Township 21 South, Range 23 East, and Sections 1, 12, and 13, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico, are hereby approved:

(A) the W/2 of Section 36, comprising 320 acres, which is to be dedicated to the existing Lowe State Gas Com Well No. 1 (API No. 30-015-10342), located at an unorthodox gas well location for the 320-acre GPU, 1995 feet from the North line and 1712 feet from the West line (Unit F) of Section 36;

(B) the W/2 of Section 1, comprising 336.57 acres, on which there is currently no well;

(C) the W/2 of Section 12, comprising 320 acres, which is to be dedicated to the existing Smith Federal Gas Com Well No. 2 (API No. 30-015-26834) located 2049 feet from the North and 480 feet from the West lines (Unit E) of Section 12; and,

(D) the W/2 of Section 13, comprising 320 acres, which is to be dedicated to the HOC Federal Gas Com Well No. 2 (API No. 30-015-26939) located 330 feet from the North line and 330 feet from the West line (Unit D) of Section 13.

(4) Any future well located in any of these four non-standard gas proration and spacing units no closer than 660 feet to the eastern boundary of the unit shall be considered

to be at a standard location.

(5) The apportionment of gas allowables for the four non-standard GPU's shall be accomplished by applying a 0.5 acreage factor to each of the non-standard GPU's.

(6) An unorthodox gas well location for the following well in the Indian Basin-Upper Pennsylvanian Gas Pool, which became unorthodox as a result of the change in pool boundary, is hereby approved: Lowe State Gas Com Well No. 1 located 1995 feet from the North line and 1712 feet from the West line and of Section 36, Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico.

(7) The locations of all wells presently drilling to or completed in the Indian Basin-Upper Pennsylvanian Associated Pool within this expansion area are hereby approved; the operator of any well having an unorthodox location shall notify the Artesia District Office of the Division in writing of the name and location of the well within thirty days from the date of this order.

(8) Pursuant to Paragraph A of Section 70-2-18, NMSA (1978), contained in Chapter 271, Laws of 1969, existing wells in the Indian Basin-Upper Pennsylvanian Associated Pool within this expansion area shall have dedicated thereto 320 acres; or, pursuant to Paragraph C of Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

(9) Failure to file new Forms C-102 with the Division dedicating 320 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to being shut-in.

(10) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



LORI WROTENBERY  
Director

SEAL

*See Also Order Nos.*

*R-9922*

*R-9922-A*

*R-9922-B*

*R-9922-C*

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED  
BY THE OIL CONSERVATION DIVISION  
FOR THE PURPOSE OF CONSIDERING:

**NOMENCLATURE**  
CASE NO. 12006  
ORDER NO. R-9922-D

APPLICATION OF MARATHON OIL COMPANY, YATES PETROLEUM CORPORATION, ORYX ENERGY COMPANY, DEVON ENERGY CORPORATION (NEVADA) AND SANTA FE ENERGY RESOURCES, INC. FOR THE EXPANSION OF THE INDIAN BASIN-UPPER PENNSYLVANIAN ASSOCIATED POOL AND THE CONCOMITANT CONTRACTION OF THE INDIAN BASIN-UPPER PENNSYLVANIAN GAS POOL, APPROVAL OF FOUR NON-STANDARD 320-ACRE GAS PRORATION UNITS, AN UNORTHODOX GAS WELL LOCATION, AND APPORTIONMENT OF GAS ALLOWABLES, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on July 9, 1998, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 7th day of December, 1998, the Division Director, having considered the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.

(2) The Indian Basin-Upper Pennsylvanian Gas Pool is a prorated gas pool currently governed by the "General Rules for the Prorated Gas Pools of New Mexico/Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Gas Pool," as promulgated by Division Order No. R-8170, as amended, which require standard 640-acre spacing and proration units ("GPU") with wells to be located no closer than 1650 feet from the outer boundary of the GPU nor closer than 330 feet from any governmental quarter-quarter section line or subdivision inner boundary. The current gas allowable for the Indian Basin-Upper Pennsylvanian Gas Pool is approximately 6.5 MMCFG per day per GPU.

(3) The Indian Basin-Upper Pennsylvanian (Prorated) Gas Pool currently comprises the following described area in Eddy County, New Mexico:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM

Section 3:	W/2
Section 4:	All
Sections 8 and 9:	All
Section 10:	W/2
Section 15:	W/2
Sections 16 through 30:	All
Sections 32 through 36:	All

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Sections 19 through 21:	All
Sections 28 through 32:	All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM

Sections 1 through 5:	All
Sections 8 through 17:	All
Section 21:	N/2
Section 22:	All.

(4) The Indian Basin-Upper Pennsylvanian Associated Pool is currently governed by the "*Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool*," as promulgated by Division Order No. R-9922, as amended, which require standard 320-acre oil and gas spacing units with wells to be located no closer than 660 feet from the outer boundary of the proration unit nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary, and with no more than one well per 80-acre tract to be drilled or produced on a standard proration unit. The special depth bracket allowable for the pool is 1,400 barrels of oil per day. The limiting gas-oil ratio for the pool is 7,000 cubic feet of gas per barrel of oil, which results in a casinghead gas allowable of 9.8 MMCFG per day.

(5) The Indian Basin-Upper Pennsylvanian Associated Pool currently comprises the following described area in Eddy County, New Mexico:

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Section 27:	S/2
Sections 33 and 34:	All.

TOWNSHIP 22 SOUTH, RANGE 24 EAST, NMPM

Sections 2 through 10: All  
Section 11: N/2  
Sections 16 and 17: All.

(6) The applicants, Marathon Oil Company, Yates Petroleum Corporation, Oryx Energy Company, Devon Energy Corporation (Nevada), and Santa Fe Energy Resources, Inc. seek an order expanding the Indian Basin-Upper Pennsylvanian Associated Pool in Eddy County, New Mexico to include:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM

Section 36: E/2

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Sections 20 and 21: All  
Sections 28 through 32: All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM

Section 1: E/2  
Section 12: E/2  
Section 13: E/2

TOWNSHIP 22 SOUTH, RANGE 24 EAST, NMPM

Section 18: All

AND THE concomitant contraction of the Indian Basin-Upper Pennsylvanian Gas Pool by deleting therefrom:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM

Section 36: E/2

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Sections 20 and 21: All  
Sections 28 through 32: All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM

Section 1: E/2  
Section 12: E/2  
Section 13: E/2.

(7) In conjunction with the proposed adjustment to the boundaries of the two subject pools, the applicants seek to establish the following four 320-acre, more or less, GPU's within the Indian Basin-Upper Pennsylvanian Gas Pool within Section 36, Township 21 South, Range 23 East, NMPM, and Sections 1, 12, and 13, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico:

(A) the W/2 of Section 36, comprising 320 acres, which is to be dedicated to the existing Lowe State Gas Com Well No. 1 (API No. 30-015-10342), located 1995 feet from the North line and 1712 feet from the West line (Unit F) of Section 36;

(B) the W/2 equivalent of Section 1, comprising 336.57 acres, on which there is currently no well;

(C) the W/2 of Section 12, comprising 320 acres, which is to be dedicated to the existing Smith Federal Gas Com Well No. 2 (API No. 30-015-26834) located 2049 feet from the North line and 480 feet from the West line (Unit E) of Section 12; and

(D) the W/2 of Section 13, comprising 320 acres, which is to be dedicated to the HOC Federal Gas Com Well No. 2 (API No. 30-015-26939) located 330 feet from the North and West lines (Unit D) of Section 13.

(8) The proposed acreage and pool rededication results in the Lowe State Gas Com Well No. 1 being only 928 feet from the outer boundary of its newly designated 320-acre gas proration unit. The resulting unorthodox gas well location for this well requires proper authorization pursuant to the appropriate rules and regulations governing the Indian Basin-Upper Pennsylvanian Gas Pool.

(9) On behalf of the applicants, Marathon Oil Company presented geologic, petroleum engineering, and oil and gas mineral ownership and land evidence, which demonstrates that this application should be granted and which is summarized as follows:

(A) In the Indian Basin area, the Upper Pennsylvanian interval contains multiple compartmentalized reservoirs, which are productive of oil, gas and water from several dolomitized horizons from the top of the Cisco formation to

the base of the Canyon formation.

(B) The Cisco/Canyon formations within the Indian Basin-Upper Pennsylvanian Gas Pool, including the extension area, and the Indian Basin-Upper Pennsylvanian Associated Pool were originally developed with flowing gas wells on 640-acre gas spacing such that, once the gas wells stopped flowing as a result of water encroachment, the wells were abandoned.

(C) The Indian Basin-Upper Pennsylvanian Gas Pool attained its maximum extension in the 1970s and, since then, water encroachment has advanced from east to west slowly watering out the flowing gas wells. Currently, flowing gas production occurs west of a structural contour line at minus 3300 feet subsea elevation.

(D) In 1992, Yates Petroleum Corporation reentered and recompleted the Hickory "ALV" Federal Well No 1 (API No. 30-015-10566), located 1650 feet from the North and West lines (Unit F) of Section 17, Township 22 South, Range 24 East, NMPM. Using the same high capacity pumps used in the nearby South Dagger Draw-Upper Pennsylvanian Associated Pool, Yates was able to achieve rates of 400 BOPD, 500 MCFGPD and 1200 BWPD in a former Indian Basin-Upper Pennsylvanian Gas Pool well which had previously been depleted. Thereafter the Division entered Order No. R-9922 and created the Indian Basin-Upper Pennsylvanian Associated Pool.

(E) The Cisco/Canyon formations within the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area are in a structural feature separated from the Indian Basin-Upper Pennsylvanian Gas Pool by a structural saddle at the top of the Cisco at a subsea elevation of minus 3500 feet. New wells located within 320-acre spacing units in the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area are now producing or have the potential to produce oil and gas that was not previously recovered when this area was originally developed as part of the Indian Basin-Upper Pennsylvanian Gas Pool.

(F) Current oil and gas production from the Cisco/Canyon formations in the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area required extensive formation "de-watering." Hydrocarbons are mobilized by continuous movement of large volumes of water with artificial lift.

(G) Pressure data demonstrates that:

(i) the Indian Basin-Upper Pennsylvanian Associated Pool, with a pressure on average of 1600 psi, is not in pressure communication with the Indian Basin-Upper Pennsylvanian Gas Pool, which has a current pressure on average of 500 psi; and

(ii) wells in the extension area of Township 21 South, Range 24 East, NMPM, have a pressure related to the Indian Basin-Upper Pennsylvanian Associated Pool.

(H) Production data demonstrates that:

(i) there are no flowing gas wells in the extension area; and

(ii) old flowing gas wells in the extension area were abandoned when they watered out and new wells are attaining oil and gas production by using high capacity pumps.

(I) The division of Section 36, Township 21 South, Range 23 East, NMPM and Sections 1, 12, and 13, Township 22 South, Range 23 East, NMPM (the transition area) into non-standard 320-acre, more or less, gas proration and spacing units will provide an equitable "buffer" between the Indian Basin-Upper Pennsylvanian Gas Pool and the Indian Basin-Upper Pennsylvanian Associated Pool because:

(i) wells have been located or can be located such that drainage by wells in the Indian Basin-Upper Pennsylvanian Associated Pool can be met with counter drainage from wells located or to be located on the eastern side of each of the four 320-acre, more or less, non-standard gas spacing and proration units in the Indian Basin-Upper Pennsylvanian Gas Pool provided that wells located on the eastern side of these units can be no closer than 660 feet from the eastern boundary, which is also the setback requirement for wells in the Indian Basin-Upper Pennsylvanian Associated Pool; and

(ii) wells located in the Indian Basin-Upper Pennsylvanian Gas Pool will not suffer unfair competition from wells located or to be located in these four, non-standard gas proration units because allowables will be apportioned based upon the gas proration system adopted for the Indian Basin-Upper Pennsylvanian Gas Pool.

(J) The granting of this application should not impair the correlative rights:

(i) of any working interest owner within any of the existing 640-acre GPUs because there are voluntary joint operating agreements requiring that all those owners continue to share in production and pay costs from the new 320-acre spacing units on the same proportional basis as in the original 640-acre unit;

(ii) of any overriding royalty interest owner or the federal royalty under a federal oil and gas lease within any of the existing 640-

acre GPUs because there are federal communitization agreements requiring that all those owners continue to share in production from the new 320-acre spacing units on the same proportional basis as in the original 640-acre unit;

(iii) under Section 32, Township 21 South, Range 24 East, NMPM, which consists of two 320-acre State of New Mexico leases and is operated by Marathon Oil Company, because there are no overriding royalty owners and the State Land Office desires that the communitization agreement for the existing 640-acre proration unit terminate and be replaced by two 320-acre proration units co-extensive with the two State leases; and,

(iv) under Section 36, Township 21 South, Range 23 East, NMPM, which consists of two State of New Mexico leases and is operated by ORYX Energy Company, because there are no overriding royalty owners and the State Land Office desires that the existing 640-acre communitization agreement terminate and be replaced by two 320-acre communitization agreements.

(10) The evidence and testimony presented at the hearing further indicate that:

(A) The Cisco/Canyon formations within the Indian Basin-Upper Pennsylvanian Associated Pool and the extension area are a single structural feature such that wells located in this area should be subject to the same special rules and regulations.

(B) Geologic and petroleum engineering evidence demonstrate that substantial volumes of oil and gas, which otherwise would not be produced, can be economically recovered from the extension area if that area is subject to the

Nomenclature

Case No. 12006

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current rules applicable to the Indian Basin-Upper Pennsylvanian Associated Pool, thereby preventing waste.

(C) Making the extension area part of the Indian Basin-Upper Pennsylvanian Associated Pool will afford the opportunity to increase the de-watering process in the reservoir and improve recovery efficiencies for both oil and gas.

(D) The adoption of the four 320-acre, more or less, non-standard gas proration and spacing units will establish a temporary "buffer" or transition area between the Indian Basin-Upper Pennsylvanian Gas Pool and the Indian Basin-Upper Pennsylvanian Associated Pool, which at this time will establish equity and protect correlative rights.

(11) The applicants are all of the operators of wells in the extension area and they have met and unanimously agreed upon this application.

(12) In accordance with Division notification rules, notification of this application and request for hearing has been sent to the owners within the proposed expansion area and to the offset operators to each non-standard gas proration and spacing unit and no objections have been received by either the Division or Marathon Oil Company, which sent out these notices.

(13) In order to prevent waste, to prevent the drilling of unnecessary wells, to protect correlative rights and provide for a more orderly development of the Cisco/Canyon formations, it is necessary to do the following:

(A) contract the Indian Basin-Upper Pennsylvanian Gas Pool and expand the Indian Basin-Upper Pennsylvanian Associated Pool as described in Finding Paragraph No. 6;

(B) approve the four non-standard 320-acre, more or less, GPU's within the Indian Basin-Upper Pennsylvanian Gas Pool as described in Finding Paragraph No. 7; and,

(C) approve an unorthodox gas well location for the Lowe State Gas Com Well No. 1 located 1995 feet from the North line and 1712 feet from the West line (Unit K) of said Section

36.

(14) Marathon Oil Company, Santa Fe Energy Resources, Inc. and ORYX Energy Corporation were present at the hearing and Marathon Oil Company, on behalf of the applicants, provided technical land, geologic and engineering testimony concerning the reservoir and, these pools.

(15) No other operator and/or interest to the application.

(16) Approval of the applicant's opportunity to economically recover their share not reduce ultimate recovery from the subject.

**IT IS THEREFORE ORDERED THAT**

(1) The Indian Basin-Upper Pennsylvanian, New Mexico, as heretofore classified, defined, and described, is hereby extended to include the following described area:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM  
Section 36:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM  
Sections 20 and 21:  
Sections 28 through 32:

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM  
Section 1: E/2  
Section 12: E/2  
Section 13: E/2.

(2) Concomitantly, the Indian Basin-Upper Pennsylvanian Associated Pool in Eddy County, New Mexico, as heretofore classified, defined, and described, is hereby **extended** to include therein the following described area:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM  
Section 36: E/2

80 mg • 160 mg <sup>TM</sup>  
**Diovan**  
valsartan capsules

8-22-2001  
Be ready to  
send this  
if Marathon  
does not show the  
Ind. Basin-Upper Penn  
Associated  
Pool.

DIO-7007

Please consult Prescribing Information attached to back of pad  
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TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM

Sections 20 and 21: All  
Sections 28 through 32: All

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM

Section 1: E/2  
Section 12: E/2  
Section 13: E/2.

TOWNSHIP 22 SOUTH, RANGE 24 EAST, NMPM

Section 18: All.

(3) The following four 320-acre, more or less, GPU's within the Indian Basin-Upper Pennsylvanian Gas Pool within Section 36, Township 21 South, Range 23 East, and Sections 1, 12, and 13, Township 22 South, Range 23 East, NMPM, Eddy County, New Mexico, are hereby approved:

(A) the W/2 of Section 36, comprising 320 acres, which is to be dedicated to the existing Lowe State Gas Com Well No. 1 (API No. 30-015-10342), located at an unorthodox gas well location for the 320-acre GPU, 1995 feet from the North line and 1712 feet from the West line (Unit F) of Section 36;

(B) the W/2 of Section 1, comprising 336.57 acres, on which there is currently no well;

(C) the W/2 of Section 12, comprising 320 acres, which is to be dedicated to the existing Smith Federal Gas Com Well No. 2 (API No. 30-015-26834) located 2049 feet from the North and 480 feet from the West lines (Unit E) of Section 12; and,

(D) the W/2 of Section 13, comprising 320 acres, which is to be dedicated to the HOC Federal Gas Com Well No. 2 (API No. 30-015-26939) located 330 feet from the North line and 330 feet from the West line (Unit D) of Section 13.

(4) Any future well located in any of these four non-standard gas proration and spacing units no closer than 660 feet to the eastern boundary of the unit shall be considered

to be at a standard location.

(5) The apportionment of gas allowables for the four non-standard GPU's shall be accomplished by applying a 0.5 acreage factor to each of the non-standard GPU's.

(6) An unorthodox gas well location for the following well in the Indian Basin-Upper Pennsylvanian Gas Pool, which became unorthodox as a result of the change in pool boundary, is hereby approved: Lowe State Gas Com Well No. 1 located 1995 feet from the North line and 1712 feet from the West line and of Section 36, Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico.

(7) The locations of all wells presently drilling to or completed in the Indian Basin-Upper Pennsylvanian Associated Pool within this expansion area are hereby approved; the operator of any well having an unorthodox location shall notify the Artesia District Office of the Division in writing of the name and location of the well within thirty days from the date of this order.

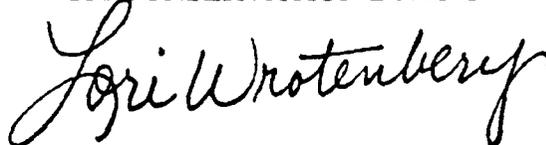
(8) Pursuant to Paragraph A of Section 70-2-18, NMSA (1978), contained in Chapter 271, Laws of 1969, existing wells in the Indian Basin-Upper Pennsylvanian Associated Pool within this expansion area shall have dedicated thereto 320 acres; or, pursuant to Paragraph C of Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

(9) Failure to file new Forms C-102 with the Division dedicating 320 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to being shut-in.

(10) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



LORI WROTENBERY  
Director

SEAL

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE No. 2750  
Order No. R-2441  
NOMENCLATURE

APPLICATION OF RALPH LOWE  
TO CREATE A NEW POOL FOR  
MORROW GAS PRODUCTION AND  
FOR SPECIAL POOL RULES,  
EDDY COUNTY, NEW MEXICO.

*Also see  
R-2441-72*

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 6, 1963, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 28th day of February, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Ralph Lowe, seeks the creation of a new gas pool for Morrow production and the promulgation of temporary special rules and regulations governing said pool, including a provision for 640-acre spacing units.

(3) That a new gas pool for Morrow production should be created and designated the Indian Basin-Morrow Gas Pool. This pool was discovered by the Ralph Lowe Indian Basin Well No. 1, located in Unit E of Section 23, Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico. The top of the perforations in the Morrow formation is at 9039 feet.

(4) That temporary special rules and regulations establishing 640-acre spacing units should be promulgated for the subject pool in order to prevent the possibility of economic loss resulting from the drilling of unnecessary wells and in order to allow

the operators in the subject pool to gather information concerning the reservoir characteristics of the pool.

(5) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(6) That special rules and regulations should be established for a temporary period to expire one year from the date that a pipeline connection is first obtained for a well in the pool; that during this temporary period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.

(7) That this case should be reopened at an examiner hearing one year from the date that a pipeline connection is first obtained for a well in the Indian Basin-Morrow Gas Pool, at which time the operators in the subject pool should appear and show cause why the Indian Basin-Morrow Gas Pool should not be developed on 160-acre spacing units.

(8) That the first operator to obtain a pipeline connection for a well in the Indian Basin-Morrow Gas Pool should notify the Commission in writing of such fact, and that the Commission should thereupon issue a supplemental order designating an exact date for reopening this case.

IT IS THEREFORE ORDERED:

(1) That a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production is hereby created and designated the Indian Basin-Morrow Gas Pool, consisting of the following-described area:

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM  
Section 22: All  
Section 23: All

(2) That Special Rules and Regulations for the Indian Basin-Morrow Gas Pool are hereby promulgated as follows, effective March 1, 1963.

SPECIAL RULES AND REGULATIONS  
FOR THE  
INDIAN BASIN-MORROW GAS POOL

RULE 1. Each well completed or recompleted in the Indian Basin-Morrow Gas Pool or in the Morrow formation within one mile of the Indian Basin-Morrow Gas Pool, and not nearer to or within the limits of another designated Morrow pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the Indian Basin-Morrow Gas Pool shall be located on a standard unit containing 640 acres, more or less, consisting of a single governmental section.

RULE 3. The Secretary-Director may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey, or the following facts exist and the following provisions are complied with:

- (a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.
- (b) The non-standard unit lies wholly within a single governmental section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which the non-standard unit is situated and which acreage is not included in said non-standard unit.
- (d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well completed or recompleted in the Indian Basin-Morrow Gas Pool shall be located no nearer than 1650 feet to the outer boundary of the section and no nearer than 330 feet to any governmental quarter-quarter section line.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may

CASE No. 2750  
Order No. R-2441

approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

IT IS FURTHER ORDERED:

(1) That any well presently drilling to or completed in the Morrow formation within the Indian Basin-Morrow Gas Pool or within one mile of the Indian Basin-Morrow Gas Pool that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of Rule 4. The operator of any such well shall notify the Artesia District Office in writing of the name and location of the well on or before March 1, 1963.

(2) That any operator desiring to dedicate 640 acres to a well presently drilling to or completed in the Indian Basin-Morrow Gas Pool shall file a new Form C-128 with the Commission on or before March 1, 1963.

(3) That this case shall be reopened at an examiner hearing one year from the date that a pipeline connection is first obtained for a well in the Indian Basin-Morrow Gas Pool, at which time the operators in the subject pool may appear and show cause why the Indian Basin-Morrow Gas Pool should not be developed on 160-acre spacing units.

(4) That the first operator to obtain a pipeline connection for a well in the Indian Basin-Morrow Gas Pool shall notify the Commission in writing of such fact, and that the Commission will thereupon issue a supplemental order designating an exact date for reopening this case.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

JACK M. CAMPBELL, Chairman

E. S. WALKER, Member

S E A L

A. L. PORTER, Jr., Member & Secretary

esr/

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO.

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE No. 2750

Order No. R-2441-A

APPLICATION OF RALPH LOWE  
TO CREATE A NEW POOL FOR  
MORROW GAS PRODUCTION AND  
FOR SPECIAL POOL RULES,  
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 8, 1967,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 13th day of February, 1967, the Commission, a  
quorum being present, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

(1) That due public notice having been given as required by  
law, the Commission has jurisdiction of this cause and the subject  
matter thereof.

(2) That by Order No. R-2441, dated February 28, 1963,  
Special Rules and Regulations were promulgated for the Indian  
Basin-Morrow Gas Pool, Eddy County, New Mexico, for a period of  
one year from the date of first pipeline connection.

(3) That pursuant to the provisions of Order No. R-2441,  
this case was reopened to allow the operators in the subject pool  
to appear and show cause why the Indian Basin-Morrow Gas Pool  
should not be developed on 320-acre spacing units.

(4) That the evidence establishes that one well in the Indian  
Basin-Morrow Gas Pool can efficiently and economically drain and  
develop 640 acres.

CASE No. 2750  
Order No. R-2441-A

(5) That the Special Rules and Regulations promulgated by Order No. R-2441 have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the gas in the pool.

(6) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-2441 should be continued in full force and effect until further order of the Commission.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the Indian Basin-Morrow Gas Pool, promulgated by Order No. R-2441, are hereby continued in full force and effect until further order of the Commission.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

A. L. PORTER, Jr., Member & Secretary

S E A L

esr/

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**DRILLING PROGRESS**

**NEW MEXICO DISTRICT 1,2,4-EDDY COUNTY CONTINUED**

<b>FASKEN OIL AND RANCH LTD</b>	<b>4-21S-24E</b>	<b>CEMETARY;</b> 9850 MORROW (FR:20010807 OKC JWG) LEASE	<b>D</b>
4 ROSS FEDERAL	SE	TYPE:FEDERAL TARGET OBJ: GAS; <b>OPER ADD:</b> 303 W WALL, STE 1800,	
IC 30015708922001	3100 FNL 2600 FEL SEC	MIDLAND, TX 79701-5116, (915)687-1777 <b>EL:</b> 3670 GR <b>LOCATION DATA:</b>	
		IRREG SEC 11 MI SW LAKEWOOD, NM <b>VERTICAL;</b>	

**PROPOSED SPUD:20011101 LOC; \$\$\$**

<b>YATES PETROLEUM CORPORATION</b>	<b>18-21S-24E</b>	<b>CEMETARY;</b> 9800 MORROW (PMT APP'D 19981015) (FR:19981019 MIDL MJA) LEASE TYPE:STATE TARGET OBJ: GAS; <b>OPER ADD:</b> P O BOX 1908, ROCK SPRINGS, WY 82902, (307)382-4005 <b>EL:</b> 3818 GR <b>LOCATION DATA:</b> 15 MI SW LAKEWOOD, NM <b>VERTICAL;</b>	<b>D</b>
2 ARCHIMEDES 'ARE' STATE COM	SW NW		
API 30-015-30444	1980 FNL 990 FWL SEC		

**CONTR:** PATTERSON DRILLING COMPANY, **RIG # 80; SPUD:19990905 CSG:** 20 IN @ 40,9 5/8 IN @ 1195 W/1100 SACK,5 1/2 IN @ 9840 W/820 SACK; **DRLG COMMENTS:** SPD 9/8/99 W/RT; **LOG TYPES:** CBND, GR, CCL; **RIG REL:** 19991013 **DST # 01 DST # 02 DST # 03 DST # 04 9840 TD,** (MORROW INTERPRETED) (TD REACHED:19991009) **8800 PBT D PROD TEST(S): # 01** PERF (CANYON SERIES) 7706-7714; ACID (7706-7714) W/ 15000 GAL ACID 20% HCL ADDITIVE: GELA SQUEEZED 7706-7714; CMT RET @ 7690, SQZD W/150 SACKS & DO TO 8800 **# 02** PERF (STRAWN) 8092-8104 8236-8242 8414-8421 8664-8670 W/ 122 SHOTS ; ACID (8092-8670) W/ 3000 GAL ACID **9840 DTD 8800 PB** ....WELL DRLD & PERFED, NO FURTHER DETAILS (LDIR:20010601) **\$\$\$\$**

<b>MARATHON OIL COMPANY</b>	<b>20-21S-24E</b>	<b>INDIAN BASIN;</b> 10500 MORROW (FR:20001214 OKC WSN) TARGET OBJ: GAS; <b>OPER ADD:</b> BOX 552, MIDLAND, TX 79702, (915)682-1626 <b>EL:</b> 3791 GR <b>LOCATION DATA:</b> 15 MI NW CARLSBAD, NM <b>DIRECTIONAL; PBHL:</b> MD 10500 4308 FSL 1403 FWL SEC 20-21S-24E SW NE NW <b>OLD INFO :</b> 30-015-30600 FORMERLY MARATHON OIL COMPANY WD-2 ROCKY HILLS <b>EL:</b> 3816 KB. SPUD:19990330 CSG: 13 3/8 IN @ 1206 W/905 SACK,9 5/8 IN @ 9790 W/3250 SACK; LNR: 7 IN @ 9408-10343 W/300 SACK; LOG TOPS: DEVONIAN 10342 ; OTD: 11307 COMP:19990623 SERVICE WELL-DISPOSAL, WATER SUPPLY, ETC	<b>D R</b>
30 INDIAN HILLS UNIT	SE NW SW		
API 30-015-30600-0100	1373 FSL 808 FWL SEC		

**CONTR:** NABORS DRILLING USA, **RIG # 311; EST SPUD:20010424 10500 EST TD,** (TD REACHED:20010725) **10500 EST TD** ....DRLD (LDIR:20010803) **\$\$\$\$**

<b>MARATHON OIL COMPANY</b>	<b>20-21S-24E</b>	<b>INDIAN BASIN;</b> 8800 PENNSYLVANIAN UPPER (FR:20001114 OKC WSN) TARGET OBJ: GAS; <b>OPER ADD:</b> BOX 552, MIDLAND, TX 79702, (915)682-1626 <b>EL:</b> 4149 GR <b>LOCATION DATA:</b> 15 MI NW CARLSBAD, NM <b>DIRECTIONAL; PBHL:</b> MD 8800 1356 FNL 1633 FWL SEC 21-21S-24E NW SE NW	<b>DG GAS</b>
31 INDIAN HILLS UNIT	SW NE NE		
API 30-015-31534	1093 FNL 663 FEL SEC		
IC 30015785522000			

**CONTR:** NABORS DRILLING USA, **RIG # 311; EST SPUD:20010218 CSG:** 13 3/8 IN @ 1800 W/725 SACK,9 5/8 IN @ 8800 W/2175 SACK; **RIG REL:** 20010227 **8800 EST TD,** (PENNSYLVANIAN INTERPRETED) (TD REACHED:20010226) **PRODUCING INTERVALS DATA: # 01** (PENNSYLVANIAN) ; UNREPORTED TREATMENT U GAS: UG IP NOT RPTD; PRODUCING GAS WELL **8800 EST TD COMP:20010326 (EST), # 01 IPU GAS: UG PROD ZONE: (PENNSYLVANIAN) INT NOT RPTD ; HOLDING FOR DATA** ....(LDIR:20010921) **\$\$\$\$**

<b>MARATHON OIL COMPANY</b>	<b>21-21S-24E</b>	<b>INDIAN BASIN;</b> 8800 PENNSYLVANIAN UPPER (PMT APP'D 20010430) (FR:20010227 OKC WSN) TARGET OBJ: GAS; <b>OPER ADD:</b> BOX 552, MIDLAND, TX 79702, (915)682-1626 <b>EL:</b> 3667 GR <b>LOCATION DATA:</b> 15 MI NW CARLSBAD, NM <b>DIRECTIONAL; PBHL:</b> MD 8800 1578 FSL 1603 FWL SEC 21-21S-24E SW NE SW	<b>D</b>
33 INDIAN HILLS UNIT	SW SW SW		
API 30-015-31755	429 FSL 326 FWL SEC		
IC 30015778362001			

**CONTR:** MCVAY DRILLING, **RIG # 8; SPUD:20010617 CSG:** 13 3/8 IN @ 1340 W/1100 SACK,9 5/8 IN @ 8555; **RIG REL:** 20010717 **8555 TD, 8555 DTD** ....WOCT (LDIR:20010910) **\$\$\$\$**

<b>MARATHON OIL COMPANY</b>	<b>21-21S-24E</b>	<b>INDIAN BASIN;</b> 9600 PENNSYLVANIAN UPPER (FR:20010830 OKC WSN) TARGET OBJ: GAS; <b>OPER ADD:</b> BOX 552, MIDLAND, TX 79702, (915)682-1626 <b>EL:</b> 3669 GR <b>LOCATION DATA:</b> 15 MI NW CARLSBAD, NM <b>DIRECTIONAL; PBHL:</b> MD 9600 1770 FSL 1750 FWL SEC 21-21S-24E NW NE SW	<b>D</b>
36 INDIAN HILLS UNIT	SW SW SW		
IC 30015739042001	429 FSL 506 FWL SEC		

**LOC; \$\$\$**

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**Section II - 09/24/2001**

**DRILLING PROGRESS**

**NEW MEXICO DISTRICT 1,2,4-EDDY COUNTY CONTINUED**

<p><b>YATES PETROLEUM CORPORATION</b>          1 LOWE STAPLE 'AMR' FEDERAL COM          API 30-015-10040-0100</p>	<p><b>22-21S-24E</b>          SE NE SW          1650 FSL 2310 FWL SEC</p>	<p><b>WILDCAT</b>; 9900 MORROW (FR:20000823 MIDL MJA) LEASE TYPE:FEDERAL          TARGET OBJ: GAS; <b>OPER ADD</b>: 105 S 4TH ST, YATES BLDG, ARTESIA, NM          88210, (505)748-1471 <b>EL</b>: 3679 GR <b>LOCATION DATA</b>: 13 MI SW          LAKEWOOD, NM 1 1/2 MI SE/9716 (MRRW) GAS PROD IN INDIAN BASIN FLD;  <b>HORIZONTAL</b>; <b>PREV WELL NO</b>: 2 <b>OLD INFO</b> : 30-015-10040-0001          FORMERLY YATES PETROLEUM CORPORATION 1 LOWE STAPLE 'AMR'          FEDERAL EL: 3677 GR. SPUD:19930610 CSG: 7 IN @ 9899 W/700 SACK; TBG:          2 7/8 IN@ 9456; OTD: 9900 PB: 9857 COMP:19930625 # 01 IPF GAS: 700          MCFD 24/64 CK FTP 195 PROD ZONE: PERF (MORROW) 9565-9604</p>	<p><b>WDR</b></p>
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**CONTR**: PATTERSON-UTI ENERGY INCORPORATED, **RIG # 512**; **SPUD:20010523 WHIPSTOCK**: 3860 ; **CSG**: 7 IN @ 8600 W/710 SACK; **DRLG COMMENTS**: SPOT CMT PLUG 5600 TO 5900 SPOT CMT PLUG TO 5237; **RIG REL**: 20010701 **8600 TD**, **PROD TEST(S)**: # 01 PERF (MORROW) 9565-9604; BRIDGE PLUG 9505 FT 9565-9604; SET SECOND CIBP @ 7558 **8600 DTD** ....WOCT (LDIR:20010706) \$\$\$\$

<p><b>MARATHON OIL COMPANY</b>          24 INDIAN HILLS UNIT          API 30-015-31266          IC 30015799342000</p>	<p><b>28-21S-24E</b>          SW NW NE          685 FNL 2073 FEL SEC</p>	<p><b>INDIAN BASIN</b>; 8800 PENNSYLVANIAN UPPER (PMT APP'D 20000630)          (FR:20000621 OKC WSN) LEASE TYPE:FEDERAL TARGET OBJ: GAS; <b>OPER ADD</b>: BOX 552, MIDLAND, TX 79702, (915)682-1626 <b>EL</b>: 3658 GR  <b>LOCATION DATA</b>: 15 MI NW CARLSBAD, NM <b>DIRECTIONAL</b>; <b>PBHL</b>: MD 8800 2139 FSL 1764 FEL SEC 21-21S-24E</p>	<p><b>D</b></p>
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**CONTR**: NABORS DRILLING USA, **RIG # 311**; **EST SPUD:20000730 8800 EST TD**, (PENNSYLVANIAN INTERPRETED) (TD REACHED:20000821) **8800 EST TD** ....WO COMPL DETAILS (LDIR:20010709) \$\$\$\$

<p><b>MARATHON OIL COMPANY</b>          34 INDIAN HILLS UNIT          API 30-015-31751          IC 30015776542001</p>	<p><b>28-21S-24E</b>          NW SE NW          1416 FNL 1607 FWL SEC</p>	<p><b>INDIAN BASIN</b>; 8800 PENNSYLVANIAN UPPER (PMT APP'D 20010427)          (FR:20010223 OKC WSN) TARGET OBJ: GAS; <b>OPER ADD</b>: BOX 552,          MIDLAND, TX 79702. (915)682-1626 <b>EL</b>: 3704 GR <b>LOCATION DATA</b>: 15 MI          NW CARLSBAD, NM <b>VERTICAL</b>;</p>	<p><b>D</b></p>
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**LOC**; \$\$\$\$

<p><b>MARATHON OIL COMPANY</b>          35 INDIAN HILLS UNIT          IC 30015743862001</p>	<p><b>28-21S-24E</b>          SE SE SE          650 FSL 293 FEL SEC</p>	<p><b>INDIAN BASIN ASSOCIATED</b>; 8800 PENNSYLVANIAN UPPER          (FR:20010523 OKC WSN) TARGET OBJ: GAS; <b>OPER ADD</b>: BOX 552,          MIDLAND, TX 79702, (915)682-1626 <b>EL</b>: 4086 GR <b>LOCATION DATA</b>: 15 MI          NW CARLSBAD, NM <b>DIRECTIONAL</b>; <b>PBHL</b>: MD 8800 660 FSL 660 FEL SEC          28-21S-24E C SE SE</p>	<p><b>D</b></p>
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**LOC**; \$\$\$\$

<p><b>DEVON ENERGY (NEVADA)</b>          7 MARTHA CREEK GAS COM          API 30-015-31141          IC 30015703342000</p>	<p><b>30-21S-24E</b>          SE SE NE          2180 FNL 660 FEL SEC</p>	<p><b>INDIAN BASIN</b>; 8500 PENNSYLVANIAN UPPER (PMT APP'D 20000508)          (FR:20000321 OKC MSW) LEASE TYPE:FEDERAL TARGET OBJ: GAS; <b>OPER ADD</b>: 20 N BROADWAY, STE 1500, OKLAHOMA CITY, OK 73102-8260,          (405)235-3611 <b>EL</b>: 3715 GR <b>LOCATION DATA</b>: 24 MI NW CARLSBAD, NM  <b>DIRECTIONAL</b>;</p>	<p><b>D</b></p>
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....PERMIT EXTENSION APPROVED (LDIR:20010828) **LOC**; \$\$\$\$

<p><b>DEVON ENERGY CORPORATION</b>          6 MARTHA CREEK GAS COM          API 30-015-30871          IC 300157020199</p>	<p><b>30-21S-24E</b>          SE SE          680 FSL 1100 FEL SEC</p>	<p><b>INDIAN BASIN</b>; 8500 PENNSYLVANIAN UPPER (PMT APP'D 19991020)          (FR:19991020 OKC JWG) LEASE TYPE:FEDERAL TARGET OBJ: GAS; <b>OPER ADD</b>: 5251 DTC PKWY, STE 603, ENGLEWOOD, CO 80111, (303)721-9385  <b>EL</b>: 3810 GR <b>LOCATION DATA</b>: 24 MI NW CARLSBAD, NM  <b>DIRECTIONAL</b>; <b>PBHL</b>: 660 FSL 660 FEL SEC 30-21S-24E SE SE</p>	<p><b>D</b></p>
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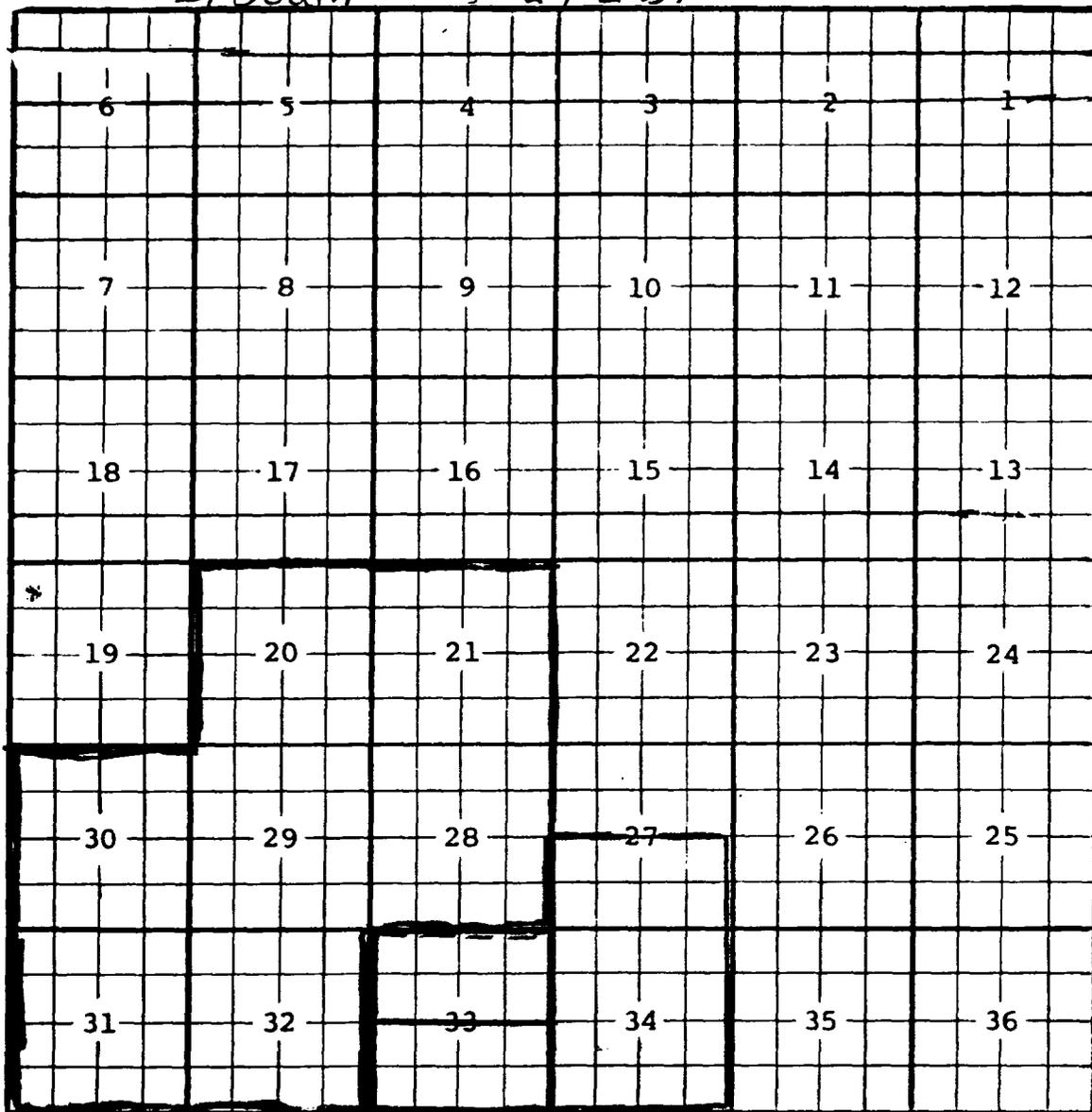
**LOC**; \$\$\$\$

<p><b>CONCHO RESOURCES INCORPORATED</b>          3 LEVERS '2' FEDERAL          API 30-015-30427          IC 300157055197</p>	<p><b>2-21S-25E</b>          660 FNL 1980 FEL SEC</p>	<p><b>CATCLAW DRAW</b>; 10700 MORROW (PMT APP'D 19980910) (FR:19970806 MD CLW) LEASE TYPE:FEDERAL TARGET OBJ: GAS; <b>OPER ADD</b>: 110 W LOUISIANA, STE 410, MIDLAND, TX 79701, (915)683-7443 <b>EL</b>: 3258 GR  <b>LOCATION DATA</b>: 12 MI NW CARLSBAD, NM <b>VERTICAL</b>; <b>PREV OPER</b>: PENWELL ENERGY <b>PREV WELL NO</b>: 3 <b>PREV LEASE</b>: LEVERS '2' FEDERAL</p>	<p><b>D</b></p>
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**LOC**; \$\$\$\$

County Eddy Pool Indian Basin-Upper Pennsylvanian  
Associated

TOWNSHIP 21 South Range 24 East NMPM



Ext:  $\frac{1}{2}$  Sec. 27, All Sec. 34 (R-9963, 9-20-93)

Ext:  $\frac{1}{2}$  Sec. 33 (R-10518, 10-20-95) Ext:  $\frac{1}{2}$  Sec. 33 (R-10664, 9-16-96)

Ext: All Secs. 20, 21, 28, 29, 30, 31, 32 (R-9922-A, 12-7-98)

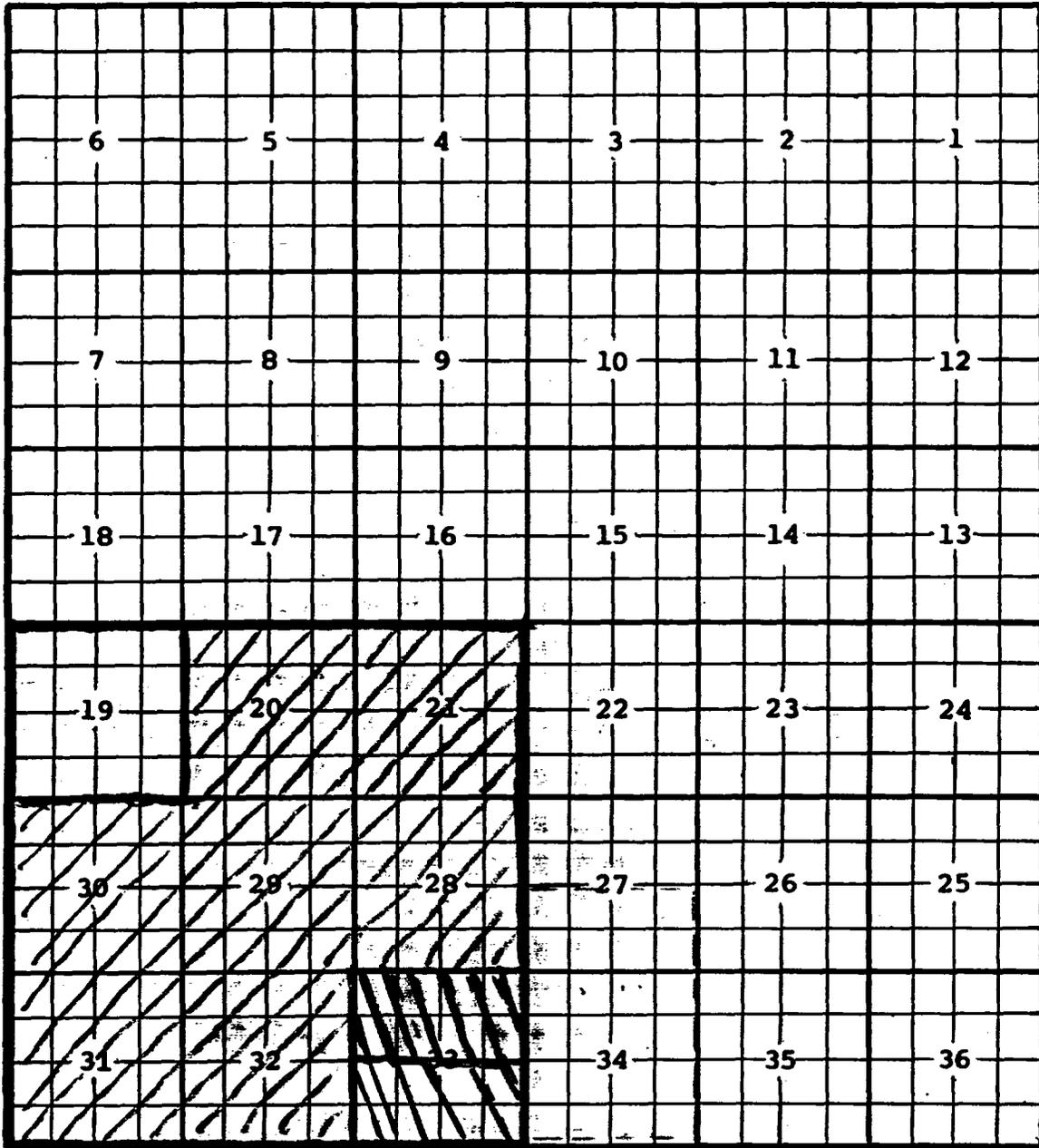
COUNTY *Eddy*

POOL *Indian Basin - Upper Pennsylvanian Gas*

TOWNSHIP *21 South*

RANGE *24 East*

NMPM



*Ext: All Secs. 19, 20, 21, 28 thru 32 (R-2726, 7-1-64) - All Sec. 33 (R-2411, 6-1-65)*

*Delete 5/2 Sec. 33 (R-10518, 10-20-95) Delete 1/2 Sec. 33 (R-10664, 9-16-96)*

*Delete All Secs. 20, 21, 28, 29, 30, 31, 32 (R-9422-D, 12-7-98)*

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CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

08/22/01 08:06:15  
OGOMES -TPZ6  
PAGE NO: 1

Sec : 21 Twp : 21S Rng : 24E Section Type : NORMAL

D 40.00  Federal owned U	C 40.00  Federal owned U	2 38.26  Federal owned U	1 38.29  Federal owned U
E 40.00  Federal owned U	F 40.00  Federal owned U	3 36.69  Federal owned U	4 36.72  Federal owned U

PF01 HELP    PF02            PF03 EXIT    PF04 GoTo    PF05            PF06  
PF07 BKWD   PF08 FWD      PF09 PRINT   PF10 SDIV     PF11            PF12

CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

08/22/01 08:06:20  
OGOMES -TPZE  
PAGE NO: 2

Sec : 21 Twp : 21S Rng : 24E Section Type : NORMAL

L 40.00  Federal owned U	K 40.00  Federal owned U	6 36.35  Federal owned U	5 36.29  Federal owned U
M 40.00  Federal owned U A A	N 40.00  Federal owned U	7 37.74  Federal owned U	8 37.68  Federal owned U

PF01 HELP      PF02              PF03 EXIT      PF04 GoTo      PF05              PF06  
PF07 BKWD      PF08 FWD        PF09 PRINT     PF10 SDIV       PF11              PF12

CMD :  
OG6IPRD

ONGARD  
INQUIRE PRODUCTION BY POOL/WELL

08/22/01 08:07:45  
OGOMES -TPZ6  
Page No: 1

OGRID Identifier : 14021 MARATHON OIL CO  
Pool Identifier : 79040 INDIAN BASIN;UPPER PENN (PRO GAS)  
API Well No : 30 15 10066 Report Period - From : 01 2000 To : 06 2001

API Well No	Property Name	Prodn. MM/YY	Days Prod	Production Volumes			Well Stat
				Gas	Oil	Water	
30 15 10066	INDIAN HILLS UNIT	01 00	31	255998	1039	159415	F
30 15 10066	INDIAN HILLS UNIT	02 00	29	225835	1938	180089	F
30 15 10066	INDIAN HILLS UNIT	03 00	31	233636	759	112425	F
30 15 10066	INDIAN HILLS UNIT	04 00	30	209097	1173	97884	F
30 15 10066	INDIAN HILLS UNIT	05 00	31	214391	1207	152369	F
30 15 10066	INDIAN HILLS UNIT	06 00	26	151651	778	129837	F
30 15 10066	INDIAN HILLS UNIT	07 00	31	190438	1545	164148	F

Reporting Period Total (Gas, Oil) :

M0025: Enter PF keys to scroll

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06 CONFIRM
PF07 BKWD	PF08 FWD	PF09	PF10 NXTPOOL	PF11 NXTOGD	PF12

CMD :  
OG6IPRD

ONGARD  
INQUIRE PRODUCTION BY POOL/WELL

08/22/01 08:07:50  
OGOMES -TPZ6  
Page No: 2

OGRID Identifier : 14021 MARATHON OIL CO  
Pool Identifier : 79040 INDIAN BASIN;UPPER PENN (PRO GAS)  
API Well No : 30 15 10066 Report Period - From : 01 2000 To : 06 2001

API Well No	Property Name	Prodn. Days		Production Volumes			Well Stat
		MM/YY	Prod	Gas	Oil	Water	
30 15 10066	INDIAN HILLS UNIT	08 00	31	191838	1056	183375	F
30 15 10066	INDIAN HILLS UNIT	09 00	30	169625	1602	140927	F
30 15 10066	INDIAN HILLS UNIT	10 00	23	120678	679	91652	F
30 15 10066	INDIAN HILLS UNIT	11 00	20	82763	645	105798	F
30 15 10066	INDIAN HILLS UNIT	12 00	31	117595	442	21699	F
30 15 10066	INDIAN HILLS UNIT	01 01	30	74977	776	61739	F
30 15 10066	INDIAN HILLS UNIT	02 01	28	89088	480	53687	F

Reporting Period Total (Gas, Oil) :

E0049: User may continue scrolling.

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06 CONFIRM
PF07 BKWD	PF08 FWD	PF09	PF10 NXTPOOL	PF11 NXTOGD	PF12

CMD :  
OG6IPRD

ONGARD  
INQUIRE PRODUCTION BY POOL/WELL

08/22/01 08:07:51  
OGOMES -TPZ6  
Page No: 3

OGRID Identifier : 14021 MARATHON OIL CO  
Pool Identifier : 79040 INDIAN BASIN;UPPER PENN (PRO GAS)  
API Well No : 30 15 10066 Report Period - From : 01 2000 To : 06 2001

API Well No	Property Name	Prodn. MM/YY	Days Prod	Production Gas	Oil	Water	Well Stat
30 15 10066	INDIAN HILLS UNIT	03 01	26	116506	944	11829	F
30 15 10066	INDIAN HILLS UNIT	04 01	30	171353	1453	28009	F
30 15 10066	INDIAN HILLS UNIT	05 01	31	188944	2331	65486	F

Reporting Period Total (Gas, Oil) : 2804413 18847 1760368

E0049: User may continue scrolling.

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12

CMD :  
OG6IPRD

ONGARD  
INQUIRE PRODUCTION BY POOL/WELL

08/22/01 08:43:27  
OGOMES -TPZE  
Page No: 1

OGRID Identifier : 14021 MARATHON OIL CO  
Pool Identifier : 79040 INDIAN BASIN;UPPER PENN (PRO GAS)  
API Well No : 30 15 10066 Report Period - From : 01 1997 To : 06 2001

API Well No	Property Name	Prod. MM/YY	Days Prod	Production Gas	Production Oil	Water	Well Stat
30 15 10066	INDIAN HILLS UNIT	06 98	24	10177	263		F
30 15 10066	INDIAN HILLS UNIT	07 98	31	22222	242		F
30 15 10066	INDIAN HILLS UNIT	08 98	21	15312	139		F
30 15 10066	INDIAN HILLS UNIT	09 98	15	15419	22		F
30 15 10066	INDIAN HILLS UNIT	10 98	31	50378	92		F
30 15 10066	INDIAN HILLS UNIT	11 98	20	47611	104		F
30 15 10066	INDIAN HILLS UNIT	12 98	31	86536	176		F

Reporting Period Total (Gas, Oil) :

M0025: Enter PF keys to scroll

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06 CONFIRM
PF07 BKWD	PF08 FWD	PF09	PF10 NXTPOOL	PF11 NXTOGD	PF12

CMD :  
OG6IPRD

ONGARD  
INQUIRE PRODUCTION BY POOL/WELL

08/22/01 08:43:38  
OGOMES -TPZE  
Page No: 2

OGRID Identifier : 14021 MARATHON OIL CO  
Pool Identifier : 79040 INDIAN BASIN;UPPER PENN (PRO GAS)  
API Well No : 30 15 10066 Report Period - From : 01 1997 To : 06 2001

API Well No	Property Name	Prod. MM/YY	Days Prod	Production Volumes			Well Stat
				Gas	Oil	Water	
30 15 10066	INDIAN HILLS UNIT	01 99	31	130617	159	204054	F
30 15 10066	INDIAN HILLS UNIT	02 99	28	154920	216	195590	F
30 15 10066	INDIAN HILLS UNIT	03 99	11	145637	487	63545	F
30 15 10066	INDIAN HILLS UNIT	04 99	30	204669	455	156125	F
30 15 10066	INDIAN HILLS UNIT	05 99	31	213827	598	193207	F
30 15 10066	INDIAN HILLS UNIT	06 99	30	220143	670	166416	F
30 15 10066	INDIAN HILLS UNIT	07 99	31	235332	702	207521	F

Reporting Period Total (Gas, Oil) :

E0049: User may continue scrolling.

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06 CONFIRM
PF07 BKWD	PF08 FWD	PF09	PF10 NXTPOOL	PF11 NXTOGD	PF12

CMD :  
OG6IPRD

ONGARD  
INQUIRE PRODUCTION BY POOL/WELL

08/22/01 08:43:40  
OGOMES -TPZE  
Page No: 3

OGRID Identifier : 14021 MARATHON OIL CO  
Pool Identifier : 79040 INDIAN BASIN;UPPER PENN (PRO GAS)  
API Well No : 30 15 10066 Report Period - From : 01 1997 To : 06 2001

API Well No	Property Name	Prodn. MM/YY	Days Prod	Production Volumes			Well Stat
				Gas	Oil	Water	
30 15 10066	INDIAN HILLS UNIT	08 99	29	218165	770	187046	F
30 15 10066	INDIAN HILLS UNIT	09 99	29	161908	551	152951	F
30 15 10066	INDIAN HILLS UNIT	10 99	31	225064	894	174586	F
30 15 10066	INDIAN HILLS UNIT	11 99	30	237908	1078	167986	F
30 15 10066	INDIAN HILLS UNIT	12 99	31	257651	1035	172121	F
30 15 10066	INDIAN HILLS UNIT	01 00	31	255998	1039	159415	F
30 15 10066	INDIAN HILLS UNIT	02 00	29	225835	1938	180089	F

Reporting Period Total (Gas, Oil) :

E0049: User may continue scrolling.

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06 CONFIRM
PF07 BKWD	PF08 FWD	PF09	PF10 NXTPOOL	PF11 NXTOGD	PF12

CMD : ONGARD  
OG6IPRD INQUIRE PRODUCTION BY POOL/WELL

08/22/01 08:43:42

OGOMES -TPZE

Page No: 4

OGRID Identifier : 14021 MARATHON OIL CO  
Pool Identifier : 79040 INDIAN BASIN;UPPER PENN (PRO GAS)  
API Well No : 30 15 10066 Report Period - From : 01 1997 To : 06 2001

API Well No	Property Name	Prodn. Days		Production Volumes			Well Stat
		MM/YY	Prod	Gas	Oil	Water	
30 15 10066	INDIAN HILLS UNIT	03 00	31	233636	759	112425	F
30 15 10066	INDIAN HILLS UNIT	04 00	30	209097	1173	97884	F
30 15 10066	INDIAN HILLS UNIT	05 00	31	214391	1207	152369	F
30 15 10066	INDIAN HILLS UNIT	06 00	26	151651	778	129837	F
30 15 10066	INDIAN HILLS UNIT	07 00	31	190438	1545	164148	F
30 15 10066	INDIAN HILLS UNIT	08 00	31	191838	1056	183375	F
30 15 10066	INDIAN HILLS UNIT	09 00	30	169625	1602	140927	F

Reporting Period Total (Gas, Oil) :

E0049: User may continue scrolling.

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06 CONFIRM
PF07 BKWD	PF08 FWD	PF09	PF10 NXTPOOL	PF11 NXTOGD	PF12

CMD :  
OG6IPRD

ONGARD  
INQUIRE PRODUCTION BY POOL/WELL

08/22/01 08:43:44  
OGOMES -TPZ6  
Page No: 5

OGRID Identifier : 14021 MARATHON OIL CO  
Pool Identifier : 79040 INDIAN BASIN;UPPER PENN (PRO GAS)  
API Well No : 30 15 10066 Report Period - From : 01 1997 To : 06 2001

API Well No	Property Name	Prodn. MM/YY	Days Prod	Production Gas	Oil	Water	Well Stat
30 15 10066	INDIAN HILLS UNIT	10 00	23	120678	679	91652	F
30 15 10066	INDIAN HILLS UNIT	11 00	20	82763	645	105798	F
30 15 10066	INDIAN HILLS UNIT	12 00	31	117595	442	21699	F
30 15 10066	INDIAN HILLS UNIT	01 01	30	74977	776	61739	F
30 15 10066	INDIAN HILLS UNIT	02 01	28	89088	480	53687	F
30 15 10066	INDIAN HILLS UNIT	03 01	26	116506	944	11829	F
30 15 10066	INDIAN HILLS UNIT	04 01	30	171353	1453	28009	F
Reporting Period Total (Gas, Oil) :				5457909	27500	3801516	

E0049: User may continue scrolling.

PF01 HELP      PF02              PF03 EXIT      PF04 GoTo      PF05              PF06 CONFIRM  
PF07 BKWD      PF08 FWD          PF09              PF10 NXTPOOL PF11 NXTOGD      PF12

CMD : ONGARD 08/22/01 08:43:46  
OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TPZ6  
Page No: 6

OGRID Identifier : 14021 MARATHON OIL CO  
Pool Identifier : 79040 INDIAN BASIN;UPPER PENN (PRO GAS)  
API Well No : 30 15 10066 Report Period - From : 01 1997 To : 06 2001

API Well No	Property Name	Prodn. Days MM/YY Prod	Production Volumes			Well Stat
			Gas	Oil	Water	
30 15 10066	INDIAN HILLS UNIT	05 01 31	188944	2331	65486	F

Reporting Period Total (Gas, Oil) : 5457909 27500 3801516

E0049: User may continue scrolling.

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12

INDIAN HILLS UNIT AREA

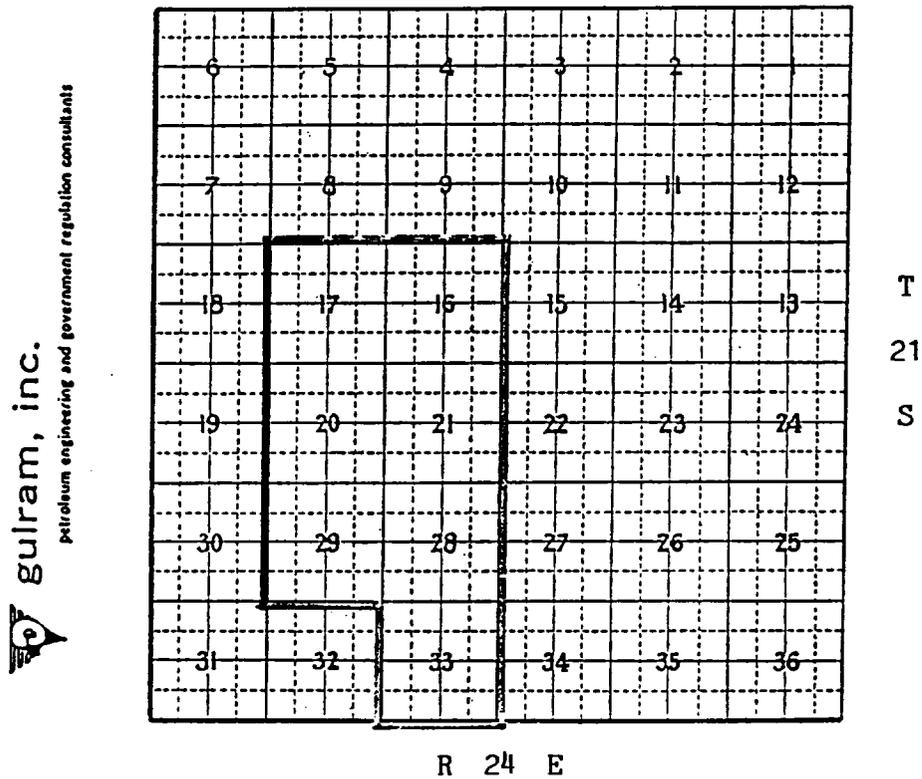
14-08-0001-8501

APPROVED: February 20, 1963

EFFECTIVE: February 20, 1963

EXPLORATORY

Eddy County, New Mexico



Unit Lands

Federal 3,640.00 acres

State 840.00 acres

Total 4,480.00 acres



CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

07/19/01 17:16:11  
OGOMES -TPEU  
PAGE NO: 1

Sec : 21 Twp : 21S Rng : 24E Section Type : NORMAL

D 40.00  Federal owned U	C 40.00  Federal owned U	2 38.26  Federal owned U	1 38.29  Federal owned U
E 40.00  Federal owned U	F 40.00  Federal owned U	3 36.69  Federal owned U	4 36.72  Federal owned U

PF01 HELP    PF02    PF03 EXIT    PF04 GoTo    PF05    PF06  
PF07 BKWD    PF08 FWD    PF09 PRINT    PF10 SDIV    PF11    PF12

CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

07/19/01 17:16:17  
OGOMES -TPEU  
PAGE NO: 2

Sec : 21 Twp : 21S Rng : 24E Section Type : NORMAL

L 40.00  Federal owned U	K 40.00  Federal owned U	6 36.35  Federal owned U	5 36.29  Federal owned U
M 40.00  Federal owned U A A	N 40.00  Federal owned U	7 37.74  Federal owned U	8 37.68  Federal owned U

PF01 HELP    PF02    PF03 EXIT    PF04 GoTo    PF05    PF06  
PF07 BKWD    PF08 FWD    PF09 PRINT    PF10 SDIV    PF11    PF12

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division  
311 S. 1st Street  
Artesia, NM 88210-2834

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
 Marathon Oil Company

3. Address and Telephone No.  
 P.O. Box 552 Midland, TX 79702 915/682-1626

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
 UL "M" 416' FSL & 176' FWL  
 SECTION 21, T-21-S, R-24-E

5. Lease Designation and Serial No.  
 NM 67260-F

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation  
 INDIAN HILLS UNIT

8. Well Name and No.  
 INDIAN HILLS UNIT #1

9. API Well No.  
 30-015-10066

10. Field and Pool, or exploratory Area  
 INDIAN BASIN UPPER PENN GAS POOL

11. County or Parish, State  
 EDDY NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other _____	<input checked="" type="checkbox"/> Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

As required by ONSHORE ORDER #7, Marathon Oil Company is notifying you of existing and intended methods of water disposal from this well. Produced water from this well will be sent, via pipeline, to one of the wells listed under PRIMARY DISPOSAL on the attached sheets. If additional capacity is required, water may be sent via pipeline (if available) or truck hauled to any of the wells listed under SECONDARY DISPOSAL on the attached sheets.

14. I hereby certify that the foregoing is true and correct

Signed Garry Gourley Title Engineer Technician Date 7/22/98

(This space for Federal or State office use)

Approved by: (ORIG. SGD.) GARY GOURLEY Title PETROLEUM ENGINEER Date JUL 31 1998

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

July 22, 1998

**ATTACHMENT I**

**Marathon Oil Company Indian Basin**

**Primary Disposal:** MOC Battery Disposal System

Operated By: Marathon Oil Company  
Well Name: MOC SWD # 1  
Location: UL "M" Section 7, T-20-S, R-25-E  
Permit#: SWD 448

Operated By: Marathon Oil Company  
Well Name: Indian Hills State Com # 7  
Location: UL "F" Section 36, T-20-S, R-24-E  
Permit #: SWD 570

**Primary Disposal:** IBGP Disposal System

Operated By: Marathon Oil Company  
Well Name: Indian Basin Gas Com # 1  
Location: UL "E" Section 23, T-21-S, R-23-E  
Permit #: SWD 416

Operated By: Marathon Oil Company  
Well Name: Marathon Federal # 1  
Location: UL "K" Section 24, T-21-S, R-23-E  
Permit #: SWD 55

**Primary Disposal:** Indian Hills Unit Disposal System

Operated By: Marathon Oil Company  
Well Name: Rocky Hills #1 SWD  
Location: UL "O" Section 19, T-21-S, R-24-E  
Permit #: SWD 691

**Secondary Disposal**

Well Name: Springs SWD  
Operator: Rowland  
Location: Sec 27, T-20-S, R-26-E  
Permit#: SWD 86

July 22, 1998

Well Name: BKE  
Operator: Rowland  
Location: Sec 13, T-23-S, R-27-E  
Permit#: SWD 495

Well Name: Salty Bill SWD  
Operator: Grace Oil  
Location: Sec 36, T-22-S, R-26-E  
Permit#: SWD R-118 Fed ID # 850303046

Well Name: Big Eddy Federal 100 SWD (Whistle Stop)  
Operator: Dakota Resources  
Location: Unit "L", Sec 8, T-21-S, R-28-E  
Permit#: SWD 461

Well Name: Dorstate SWD  
Operator: Mesquite Services  
Location: Sec 27, T25S, R26E  
Permit#: SWD 247

Well Name: Aikman SWD State # 1  
Location: Section 27, T-19-S, R-25-E  
Permit#: SWD 417

Well Name: Holstun # 1 SWD  
Operated By: Nearburg Producing Company  
Location: Section 4, T-20-S, R-25-E  
Permit#: R 9269

Well Name: Charlotte McKay Federal # 1 SWD  
Operated By: Yates Petroleum  
Location: Section 25, T-20-S, R-25-E  
Permit#: SWD 460

Well Name: Walter Solt State No. 1  
Location: Unit "L", Sec 5, T-18-S, R-28-E  
Permit#: SWD 318

Well Name: Dagger Draw Salt Water Disposal  
Location: Sec 22, T-19-S, R-25-E  
Permit#: R7637

July 22, 1998

Well Name: Corrine Grace Salt Water Disposal Well  
Location: Sec 36, T-22-S, R-26-E  
Permit#: K6290

Well Name: Myrtle-Myra WIW # 1  
Location: Sec 21, T-21-S, R-27-E  
Permit#: NMOCD-FWD-391

Solids that can't be hauled into one of these disposal sites will be sent to:

Well Name: CRI SWD  
Location: Sec 27, T20S, R32E  
Permit #: SWD R91166

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division  
311 S. 1st Street  
Artesia, NM 88210-2834

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator

Marathon Oil Company

3. Address and Telephone No.

P.O. Box 552 Midland, TX 79702 915/682-1626

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

UL "M" 416' FSL & 176' FWL  
SECTION 21, T-21-S, R-24-E

*660' SW at surface*

5. Lease Designation and Serial No.

NM 67260-F

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

INDIAN HILLS UNIT

8. Well Name and No.

INDIAN HILLS UNIT #1

9. API Well No.

30-015-10066

10. Field and Pool, or exploratory Area

INDIAN BASIN UPPER PENN GAS POOL

11. County or Parish, State

EDDY NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input checked="" type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>INIT. COMPLETION-RE-ENTRY</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

MARATHON OIL COMPANY re-entered this well and recompleted it as follows:

MIRU PU. NU BOP. Test to 1000 psi. PU 6-1/8" bit, six 4-3/4" DCs on 2-7/8" tubing. Tagged DV @ 6144'. Drilled DV & cement to 6215'. Tested to 1000 psi. PU 2-7/8" tubing. Tagged PBTD @ 7833'. Displaced csg. w/clean fluid. POOH. RU wireline. Ran CBL-CCL from 7824'-5800'. Showed good bond. RIH w/4" port plug guns loaded with 23 tungsten liner charges at 4 JSPF w/120 degree phasing. Perfed Upper Penn formation from 7300'-7310', 7326'-7362', 7368'-7430' for a total of 864 holes. RD wireline. RIH w/7" PPI tool on 2-7/8" tbg to 7435'. Set packer & dropped standing valve. RU Fracmaster. Spotted 500 gals. 28% HCl acid to packer. Reversed out. Dropped fluid control valve. Spotted 15% NEFE acid to PPI tool. Set packer @ 7430'. PUH treating perms. from 7430'-7368', 7362'-7326', & 7310'-7300' in 2' increments w/100 gals. per foot for a total of 10,800 gals. Pulled up and set packer @ 7230'. Fished FCV & standing valve. Loaded & tested annulus to 500 psi. RD Fracmaster. RU swab unit. Recovered 80 bbls. fluid. Released PPI packer. POOH w/PPI tool. RIH w/7" RBP. Set @ 3022'. Loaded & tested well. POOH leaving killstring in hole. POOH w/killstring. RIH w/2 ODI P-7 submersible pumps, two 190 HP motors w/5-1/2" shroud, on 240 jts. 2-7/8" J-55 tbg. Released RBP @ 3022'. RIH & landed RBP @ 7615'. Ran 3/8" capillary tbg. from 7505' to surface. ND BOP. NU Seaboard head. RD PU.

14. I hereby certify that the foregoing is true and correct

Signed

*Hunny Lark*

Title Engineer Technician

ACCEPTED FOR RECORD  
PETER W. CHESTER  
7/22/98

(This space for Federal or State office use)

Approved by

Title

Conditions of approval, if any:

AUG 25 1998

Date

BUREAU OF LAND MANAGEMENT  
ROSEBUD FIELD OFFICE  
RESOURCE AREA

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

FORM APPROVED  
OMB NO. 1004-0137  
Expires: February 28, 1995

57

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1. LEASE DESIGNATION AND SERIAL NO.

NM 87260-F

IF INDIAN, ALLOTTEE OR TRIBE NAME

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY   
b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other RE-ENTRY

811 S. 1st Street  
Artesia, NM 88210-2834

7. UNIT AGREEMENT NAME  
INDIAN HILLS UNIT

2. NAME OF OPERATOR  
Marathon Oil Company

8. FARM OR LEASE NAME, WELL NO.  
INDIAN HILLS UNIT #1

3. ADDRESS AND TELEPHONE NO.  
P.O. Box 552 Midland, TX 79702 915/682-1626

9. API WELL NO.  
30-015-10066

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface  
UL "M", 416' FSL & 176' FWL  
At top prod. interval reported below

10. FIELD AND POOL, OR WILDCAT  
INDIAN BASIN UPPER PENN GAS POOL

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
SECTION 21, T-21-S, R-24-E

14. PERMIT NO. DATE ISSUED

12. COUNTY OR PARISH  
EDDY  
13. STATE  
NM

15. DATE SPUDDED 4-22-98 16. DATE T.D. REACHED 5-18-98 17. DATE COMPL. (Ready to prod.) 6-1-98 18. ELEVATIONS (DF, RICK, RT, GR, ETC.)\* GL-3,704'; KB-3,720' 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 7926' MD 21. PLUG, BACK T.D., MD & TVD 7833' MD 22. IF MULTIPLE COMPL., HOW MANY\* 23. INTERVALS DRILLED BY 24. ROTARY TOOLS ALL 25. CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)\* 7300' - 7430' UPPER PENN 23. WAS DIRECTIONAL SURVEY MADE NO

26. TYPE ELECTRIC AND OTHER LOGS RUN PLATFORM EXPRESS W/Hals (DLL-MSFL-LLS-GR-CAL-LDT-CNL), NGT/CAL, FMI/GR, CBL/CLL 27. WAS WELL CORED NO

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13-3/8"	48#	304'	17-1/2"	960 SX CIRCULATED	
9-5/8"	36#	3,098'	12-1/4"	1213 SX CIRCULATED	
7"	23 & 26# K-55	7,865'	8-3/4"	900 SX CIRC. 170 SX	

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	7615'	RBP-7615'

31. PERFORATION RECORD (Interval, size and number)  
7300' - 7312', 7326' - 7362', 7368' - 7430'  
TOTAL OF 864 HOLES. SHOT AT 4 JSPF W/120 DEGREE PHASING

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
7300-7430	10,800 GALS. 15% NEFE ACID

33. PRODUCTION

DATE FIRST PRODUCTION 6-5-98		PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump) 2 ODI "P-7" SUB. PUMPS, 190 HP MOTORS W/5-1/2" SHROUD				WELL STATUS (Producing or shut-in) PRODUCING	
DATE OF TEST 7/20/98	HOURS TESTED 24	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL - BBL. 36	GAS - MCF. 845	WATER - BBL. 4665	GAS - OIL RATIO 23.472
FLOW. TUBING PRESS. 5260	CASING PRESSURE 3140	CALCULATED 24-HOUR RATE	OIL - BBL.	GAS - MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.) 48.2	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  
SOLD

35. LIST OF ATTACHMENTS  
LOGS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records  
SIGNED Ginny Larke TITLE ENGINEER/TECHNICIAN DATE 7/22/98

ACCEPTED FOR RECORD  
PETER W. CHESTER  
AUG 25 1998  
BUREAU OF LAND MANAGEMENT  
WELL RESOURCE AREA

\*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	GEOLOGIC MARKERS		
				NAME	MEAS. DEPTH	TRUE VERT. DEPTH
UPPER PENN	7295'	7887'	DOLOMITE, SHALE, LIMESTONE - GAS, OIL & WATER	QUEEN	SURFACE	
				SAN ANDRES	697'	
				GLORIETA	2393'	
				PADDOCK	2510'	
				BONE SPRING	5000'	
				B/LEONARDIAN	6555'	
				WOLFCAMP SHALE	6658'	
				UPPER PENN	7295'	

RECEIVED  
 MAR 29 A 9 31  
 DISTRICT OFFICE

District I  
 PO Box 1980, Hobbs, NM 88241-1980  
 District II  
 PO Drawer DD, Artesia, NM 88211-0719  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
 Energy, Minerals & Natural Resources Department

SF  
 Form C-104  
 Revised October 18, 1994  
 Instructions on back  
 Submit to Appropriate District Office  
 5 Copies

OIL CONSERVATION DIVISION  
 2040 South Pacheco  
 Santa Fe, NM 87505

AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

<sup>1</sup> Operator name and Address Marathon Oil Company P.O. Box 552 Midland, TX 79702		<sup>2</sup> OGRID Number 14021	
<sup>4</sup> API Number 30-0 30-015-10066		<sup>3</sup> Reason for Filing Code 3000 bbls REQUEST ALLOWABLE FOR RE-ENTRY	
<sup>5</sup> Pool Name INDIAN BASIN UPPER PENN GAS POOL		<sup>6</sup> Pool Code 79040	
<sup>7</sup> Property Code 6409	<sup>8</sup> Property Name INDIAN HILLS UNIT		<sup>9</sup> Well Number 1

II. <sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
M	21	21-S	24-E		416	SOUTH	176	WEST	EDDY

<sup>11</sup> Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
M	21	21-S	24-E		416	SOUTH	176	WEST	EDDY
<sup>12</sup> Lse Code F	<sup>13</sup> Producing Method Code P		<sup>14</sup> Gas Connection Date 6/6/98		<sup>15</sup> C-129 Permit Number		<sup>16</sup> C-129 Effective Date		<sup>17</sup> C-129 Expiration Date

III. Oil and Gas Transporters

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> POD	<sup>21</sup> O/G	<sup>22</sup> POD ULSTR Location and Description
015694	NAVAJO REFINING P. O. BOX 159 ARTESIA, NM 88211	2821752	OIL	UL "P", SECTION 19, T-21-S, R-24-E
14035	MARATHON OIL COMPANY P. O. BOX 1324 ARTESIA, NM 88211-1324	2821753	GAS	UL "P", SECTION 19, T-21-S, R-24-E

IV. Produced Water

<sup>23</sup> POD	<sup>24</sup> POD ULSTR Location and Description
2821754	UL "P", SECTION 19, T-21-S, R-24-E

V. Well Completion Data

<sup>25</sup> Spud Date	<sup>26</sup> Ready Date	<sup>27</sup> TD	<sup>28</sup> PBDT	<sup>29</sup> Perforations	<sup>30</sup> DHC, DC, MC
4/22/98	6/1/98	7926'	7833'	7300' - 7430'	
<sup>31</sup> Hole Size	<sup>32</sup> Casing & Tubing Size	<sup>33</sup> Depth Set	<sup>34</sup> Sacks Cement		
17-1/2"	13-3/8"	304'	960 SX CIRCULATED		
12-1/4"	9-5/8"	3098'	1213 SX CIRCULATED		
8-3/4"	7"	7865'	900 SX CIRC. 170 SX		
	2-7/8"	7615'			

VI. Well Test Data

<sup>35</sup> Date New Oil	<sup>36</sup> Gas Delivery Date	<sup>37</sup> Test Date	<sup>38</sup> Test Length	<sup>39</sup> Tbg. Pressure	<sup>40</sup> Csg. Pressure
6-5-98	6-5-98	7/20/98	24 HRS.	5260	3140
<sup>41</sup> Choke Size	<sup>42</sup> Oil	<sup>43</sup> Water	<sup>44</sup> Gas	<sup>45</sup> AOF	<sup>46</sup> Test Method
	36	4665	845		PUMPING

<sup>47</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Ginny Larke*  
 Printed name: Ginny Larke  
 Title: Engineer Technician  
 Date: 7/22/98  
 Phone: 915/682-1626

OIL CONSERVATION DIVISION  
 Approved by: *Jim W. Brown*  
 Title: *District Supervisor*  
 Approval Date: 8-10-98

<sup>47</sup> If this is a change of operator fill in the OGRID number and name of the previous operator			
Previous Operator Signature	Printed Name	Title	Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

N.M. DISTRICT DIVISION  
811 S. 1st S  
Albuquerque, NM 87102-2834

FORM APPROVED  
Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator

Marathon Oil Company

3. Address and Telephone No.

P.O. Box 552 Midland, TX 79702 915/687-8356

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

U. L. "M" 660' FSL & 660' FWL

21-215-24E

5. Lease Designation and Serial No.

NM 67260-F

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation  
INDIAN HILLS UNIT

8. Well Name and No.  
INDIAN HILLS UNIT #1

9. API Well No.  
30-015-100166

10. Field and Pool, or exploratory Area  
INDIAN BASIN U. PENN

11. County or Parish, State  
EDDY NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- Notice of Intent
- Subsequent Report
- Final Abandonment Notice

TYPE OF ACTION

- Abandonment
- Recompletion
- Plugging Back
- Casing Repair
- Altering Casing
- Other RE-ENTRY
- Change of Plans
- New Construction
- Non-Routine Fracturing
- Water Shut-Off
- Conversion to Injection
- Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

SEE ATTACHED FOR DETAILS.

ACCEPTED FOR RECORD

(ORIG. SGD.) GARY GOURLEY

1993 MAY 28 AM 10:40

14. I hereby certify that the foregoing is true and correct

Signed Walter J. Curran Title DRILLING SUPERINTENDENT

Date 5/27/98

(This space for Federal or State office use)

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
Conditions of approval, if any: \_\_\_\_\_

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statement or representations as to any matter within its jurisdiction.

# MARATHON OIL COMPANY

## Indian Hills Unit # 1

UL "M" 660' FSL & 660' FWL

Sec. 21, T-21-S, R-24-E

Eddy Co., N.M.

4/21/98 MIRU Mc Vay # 4. NU 11" 3M dual ram BOPE, annular, choke manifold, gas separator. Tested BOPE w/ rig pump.

Drilled 8.75" hole through cement plug 0 - 321. TIH and tagged plug @ 2959'. Drilled cement 2959' - 3125'. Tagged plug #3 @ 6000'. Drilled cement to 6030'. TIH open ended to set kick off plug @ 6012', at 8.5 degrees.. Pumped 100 sx "H". WOC Tagged cement plug @ 5849', drilled cement to 5984', made kick - off. Drilled to 6230', TOH to change BHA, TIH and could not enter side - track. TIH open - ended to 6114', set balanced cement plug W/ 350 sx., "H" w/ 1% CFR-3, Wt - 13.0, yield - .97. WOC, Tagged cement @ 5354', dressed off plug to 5390', PU motor and bent sub to make kick - off. Drilled to 7931'. TD @ 5/17/98. Logged well as follows: Platform Express W/ HALS/ NGT/FMI-GR TD - 7916'. CNL/GR/CAL to surface.

Ran 7" production casing as follows: Float shoe, 2 jts, 26#, float collar, 18 jts, 26#, marker jt., 20 jts, 26#, ESC tool, 37 jts 26 #, 103 jts 23#, 2 jts 26#. Shoe @ 7765', FC @ 7773', Marker jt @ 6971', DV @ 6083'.

Cemented 1st stage w/ 250 sx Modified Super H w/ .4% CFR-322, 5 pps Gilsonite, .5% halad 344, Wt - 13.0, yield - 1.68. Opened DV and circulated 5 sx to pit. Cemented 2nd stage w/ 650 sx Interfil C w/ .25 pps flocele, 3 pps Gilsonite, Wt - 11.9, yield 2.46. Tailed in w/ 100 sx C. Circulated 165 sx. Pug down @ 0245 hrs 5/17/98.

Set 7" slips, cut casing and installed 11" 3M X 7-1/16" 3M tubing head. Tested seals to 3000 psi.

Released rig @ 0700 hrs 5/17/98.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1. TYPE OF WORK  
 DRILL  DEEPEN

2. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER

3. NAME OF OPERATOR  
 Marathon Oil Company

4. ADDRESS AND TELEPHONE NO.  
 P.O. Box 552 Midland, TX 79702

5. LOCATION OF WELL (Report location clearly and in accordance with BLM requirements.)  
 At surface  
 U L "M" 660' FSL & 660' FWL  
 At proposed prod. zone

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE  
 18 MILES NW OF CARLSBAD

7. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any) 4620

8. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 8200'

9. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 3704' GL

10. NO. OF ACRES IN LEASE  
 4480 40

11. NO. OF ACRES ASSIGNED TO THIS WELL  
 640

12. ROTARY OR CABLE TOOLS  
 ROTARY

13. APPROX. DATE WORK WILL START  
 1/25/98

**SUBJECT TO  
LIKE APPROVAL  
BY STATE FOR  
UNORTHODOX LOCATION**

RECEIVED FEB 19 1998  
OCD - ARTESIA

23. PROPOSED CASING AND CEMENT

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
* 17 1/2"	13 3/8"		304	960-CIRCULATED
* 12 1/4"	9 5/8"	36	3098'	1213-CIRCULATED

PROPOSED TO RE-ENTER WELL. MAKE SIDETRACK AROUND 7" CSG CUT @ 6125' AND DRILL TO 8200' TO RECOMPLETE IN THE  
SEE ATTACHED FOR DETAIL.

\*CASING CEMENTED IN PLACE

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED**

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Walter J. Quare TITLE DRILLING SUPERINTENDENT DATE 12/18/97

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE: \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY TORIG. 1001 ARMANDO A. LOPEZ TITLE ADM. MINERALS DATE 2-12-98

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Submit to Appropriate District Office  
 State Lease - 4 copies  
 Fee Lease - 3 copies

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-102  
 Revised 1-1-89

**OIL CONSERVATION DIVISION**

P.O. Box 2088  
 Santa Fe, New Mexico 87504-2088

DISTRICT I  
 P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
 P.O. Drawer DD, Artesa, NM 88210

DISTRICT III  
 1000 Rio Brazos Rd., Aztec, NM 87410

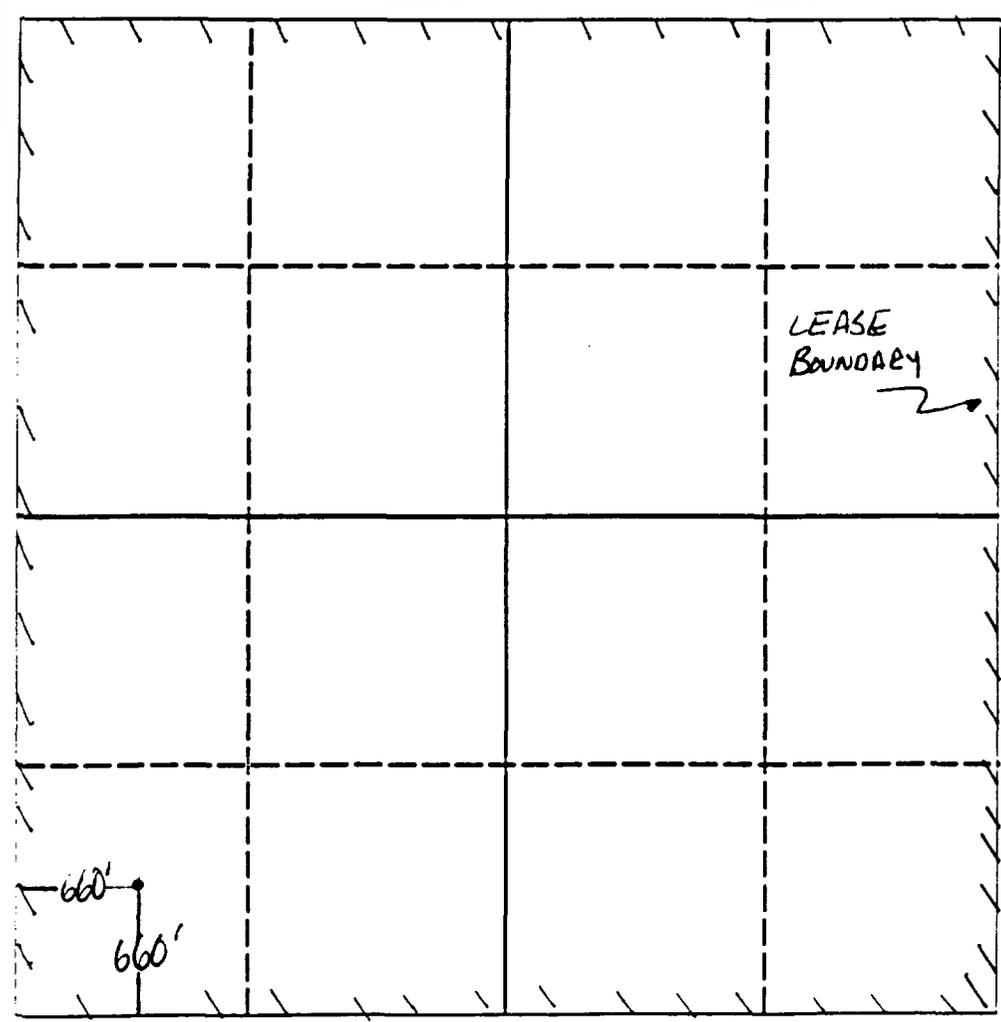
**WELL LOCATION AND ACREAGE DEDICATION PLAT**

All Distances must be from the outer boundaries of the section

RECEIVED  
 1997 DEC 22 P 1:46

Operator			Lease		Well No.	
			INDIAN HILLS UNIT		ROSWELL	
Unit Letter	Section	Township	Range	County		
M	21	21S	24-E	Eddy		
Actual Footage Location of Well:						
660		South		660		West
feet from the		line and		feet from the		line
Ground level Elev.	Producing Formation		Pool		Dedicated Acreage:	
3704	U Penn		INDIAN BASIN		640 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
  - Yes  No
  - If answer is "yes" type of consolidation \_\_\_\_\_
 If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary).  
 No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



**OPERATOR CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: *Walter J. Nordt*

Printed Name: D. P. Nordt

Position: Drilling Superintendent

Company: Marathon Oil Company

Date: 12/18/97

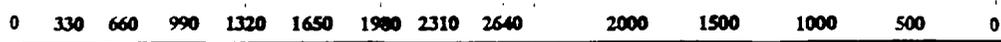
**SURVEYOR CERTIFICATION**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: \_\_\_\_\_

Signature & Seal of Professional Surveyor: \_\_\_\_\_

Certificate No. \_\_\_\_\_



NUMBER OF COPIES RECEIVED	
REGISTRATION	
DATE	
FILE	
UNIT	
LAND OFFICE	
TRANSPORTER	OIL
	GAS
PRODUCTION OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT  
SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

**ILLEGIBLE**

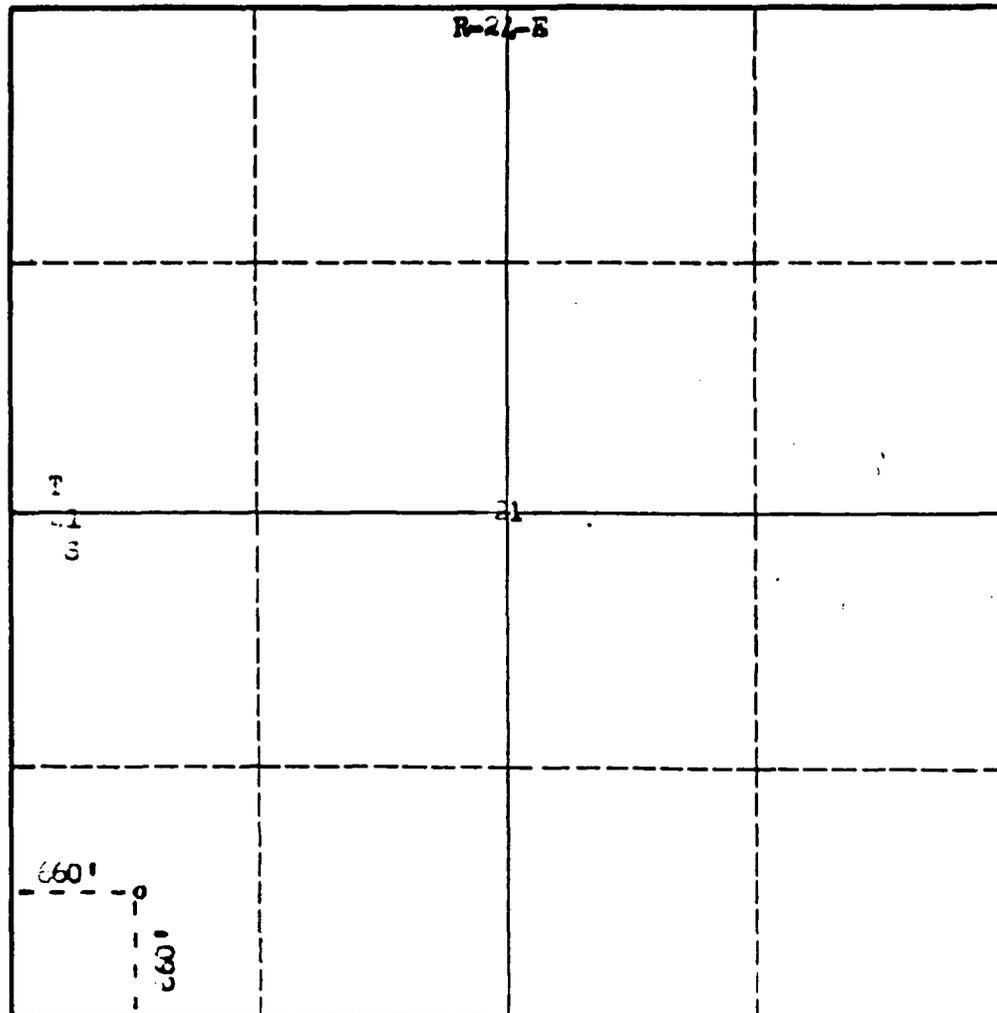
SECTION A

Operator <b>Palph Lowe</b>		Lease <b>Indiar 1115 Unit</b>		Well No. <b>1</b>
Unit Letter <b>M</b>	Section <b>1</b>	Township <b>T-21-S</b>	Range <b>R-24-E</b>	County <b>Eddy</b>
Actual Footage Location of Well: <b>660</b> feet from the <b>South</b> line and <b>660</b> feet from the <b>West</b> line				
Ground Level Elev. <b>3704</b>	Producing Formation <b>Wildcat</b>		Dedicated Acreage: <b>40</b> Acres	

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES  NO  ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1955 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES  NO . If answer is "yes," Type of Consolidation \_\_\_\_\_
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

SECTION B



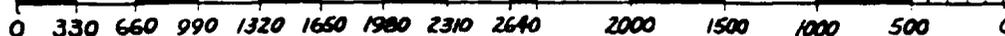
CERTIFICATION

I hereby certify that the information in SECTION A above is true and complete to the best of my knowledge and belief.

*C. C. Murray*  
Name  
**C. C. Murray**  
Position  
**Agent**  
Company  
**Palph Lowe**  
Date  
**February 16, 1963**

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
**November 21, 1962**  
Registered Professional Engineer and/or Land Surveyor  
*Joe Hewitt Jr*  
Certificate No.  
**3280**



Indian Hills Unit #1  
Indian Basin Field  
416' FSL & 176' FWL Sec 21, T21S, R24E  
Eddy County, NM

Existing Casing (Original hole drilled 1963)

Surface: 13 3/8" set at 304'. Cemented with 960 sxs.

Intermediate: 9 5/8" 36# set at 3098'. Cemented 1163 sxs. TOC @ 184'. Topped out with 50 sxs.

Production: 7" 23#, 26# & 29# N80 set at 10160' First stage cemented with 100 sxs. Second stage cemented with 600 sxs. Stage tool at 6400' by temperature survey.

Well Abandonment (8/92)

Set CIBP at 9115' and capped with 10 sxs.

Cut casing at 6100'

Spotted 40 sxs from 6175' to 6002' (7" casing stub), tagged plug.

Spotted 40 sxs from 3117' to 2952' (9 5/8" casing shoe), tagged plug.

Spotted 35 sxs from 317' to surface.

Installed dry hole marker.

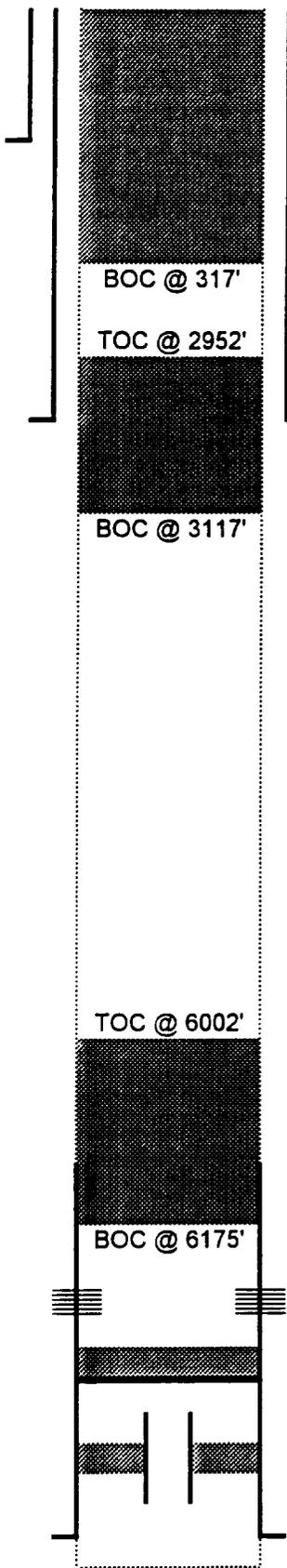
Re-entry procedure

1. MIRU, NU & test 7 1/16" 5M BOPE.
2. Drill out cement plugs at surface to 317', 2952' to 3117'. RIH tag cement plug at 6002'. POOH.
3. RIH open ended. Spot 175 sxs kick off plug from 6002' to 5700' (includes 40% excess). POOH & WOC.
4. RIH w/ bit. Dress off cement plug from 5700' to 5750'. POOH.
5. RIH w/ bit and motor. Blind side track around existing casing. Build to 8 degrees at 6300'. Hold at 8 degrees to 6600'. Drop 2 degrees/100' until vertical at 7000'. Drill vertical hole to ~8200'. New well will be approximately 100' from existing wellbore.
6. Log well. Run & cement 7" 23# (surf to 4800') and 26# (4800' to TD) K55 casing. Cement 1st stage with 250 sxs, 2nd stage w/ 750 sxs. Set stage tool at 6400'. RDMO.
7. Complete well in Upper Penn based on logs.

DRH

12/15/97

# WELL DATA SHEET



**FIELD:** INDIAN BASIN  
**WELL:** INDIAN HILLS UNIT #1  
**LOCATION:** UNIT M, SEC. 21, T21S - R24E  
**COUNTY:** EDDY  
**STATE:** NM  
**STATUS:** PLUGGED & ABANDONED 8/92

**ELEVATIONS:** 3670' GL & 3681' KB

13 3/8"  
@ 304'

9 5/8"  
@ 3098'

**SURFACE:** 13 3/8" 48# @ 304'; CMT W/ 960 SXS IN 8 STGS

**INTERMEDIATE:** 9 5/8" 36# @ 3098' CMT W/ 1163 SXS, TOC @ 184'  
PMP 50 SXS NEAT CMT TO SURFACE

**PRODUCTION:** 7" 29# N-80 FROM 6125' TO 10,160', CMT TO TOP

TOP 7"  
@ 6125'

**COMPLETIONS:** UPPER PENN: 7316'-7332', 7410'-7420', 7536'-7548'  
7590'-7610', 7690'- 7740'

CIBP @ 9115'  
W/ 10 SXS CMT

MORROW: 9200'-9214'

LOK-SET PKR @ 9123'

7"  
@ 10,160'

**Thirteen Point Surface Use Plan**  
**MARATHON OIL COMPANY**

**Indian Hills Unit No. 1**  
**Sec. 21, T-21-S, R-24-E**  
**Eddy County, New Mexico**

1. **Existing Roads:** Refer to Vicinity Lease Map.
  - a. The proposed wellsite is staked and the surveyor's plat is attached.
  - b. To reach the location from Carlsbad, New Mexico: Follow Hwy. 285 North of Carlsbad 11 miles. Turn left on 137. Go 6 miles South. Turn right on Marathon Road ( 401). Follow 401 1.0 miles to an existing lease road, turn right .25 miles into location.
  - c. Existing roads within a one-mile radius (refer to Vicinity Lease Map).
  - d. The existing road will be maintained as necessary to provide access during the drilling operation.
  
2. **Planned Access Road:** Refer to Vicinity Lease Map.

Access will be by existing lease roads, no new lease roads will be required. The access road will enter the drilling pad on the Southwest corner. The drilling location will have a V-door facing East.
  
3. **Location of Existing Wells:** See Vicinity Lease Map.
  
4. **Location of Existing and Proposed Production Facilities within a one-mile radius:**
  - a. **Existing:** There are nine oil and gas wells operated by Marathon and Santa Fe within a one-mile radius of the proposed location. These locations have production facilities including separators, condensate, oil, water storage tanks. Marathon and Santa Fe operate a variety of dehydrators, meter runs, and several gathering lines in the one-mile radius.
  - b. **New Facilities:** The proposed location will have a separator and gas sales line. The actual equipment and its configuration will be determined after the well is completed.
  - c. Rehabilitation of disturbed areas no longer needed for operations will be accomplished by grading, leveling and seeding as recommended.

**A. P. D. (cont.)  
Thirteen Point Surface Use Plan  
Indian Hills Unit No. 1**

5. Location and Type of Water Supply:
  - a. Source: Indian Basin Gas Plant, SW/4, NE/4, Sec. 23, T-21-S, R-23-E.
  - b. The water will be trucked by a contractor over existing roads to the well location. No new construction will be required on/along the water route.
  - c. No water well will be drilled on this location.
  
6. Source of Construction Materials:
  - a. Construction materials may be obtained from the construction site, a pit to be determined by the BLM.
  - b. If production is obtained, native materials will be used on the location and for installation of production facilities.
  - c. On-site inspection may dictate any changes in location construction.
  
7. Methods of Handling Waste Material Disposal:
  - a. Cuttings - will be deposited in the reserve pit.
  - b. Drilling fluids - contained in reserve pit and allowed to evaporate. Free water will be removed and transported to an approved disposal site to accelerate pit drying.
  - c. Produced fluids - none anticipated.
  - d. A portable chemical toilet will be provided.
  - e. Garbage and other waste material - garbage and trash will be stored in a receptacle on location and periodically hauled to an approved sanitary landfill.
  - f. After the rig moves out, all materials not necessary for operations will be removed. Pits will be backfilled and leveled. The location will be cleaned of all trash and debris.
  
8. Ancillary Facilities: Camp facilities will not be required. Portable trailers will be on location to house a company drilling foreman and contract toolpusher.
  
9. Wellsite Layout:
  - a. The wellpad layout shows the drillsite layout as staked. Cross-sections have been drafted to visualize the planned cuts and fills across the location. Topsoil will be stockpiled per specifications.
  - b. The reserve pit will be fenced on three sides before re-entry begins. The fourth side will be fenced when the drilling rig leaves location.
  - c. The reserve pit will be lined (8 mil material).

**A. P. D. (cont.)**  
**Thirteen Point Surface Use Plan**  
**Indian Hills Unit No. 1**

10. Plans for Restoration of the Surface:
- a. Backfilling, leveling, and contouring are planned as soon as all pits have dried. Waste disposal and spoiled materials will be buried or hauled away immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.
  - b. The soil banked material will be spread over the area. Revegetation will be accomplished by planting mixed grasses as per formula by BLM. Revegetation is recommended for road area, as well as around the drill pad.
  - c. The reserve pit will be fenced during drilling operations. Fencing will be maintained until leveling and cleanup are accomplished.
  - d. If any oil is in the pits and is not immediately removed after operations cease, the pit containing the oil or other adverse substances will be flagged overhead or covered with mesh.
  - e. The rehabilitation operations will begin after the drilling rig is removed. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and revegetation will be done between July 15 and September 15.
11. Other Information:
- a. There are no significant archaeological or cultural sites visible in the area of disturbance. A cultural resource survey was performed by Archaeological Consultants Inc. of Roswell.
  - b. General topography: Shown on Vicinity Lease Map. The terrain at the wellsite is gentle hillside. Vegetation is primarily sage brush and natural grasses.
  - c. Animal life: Prairie dogs, domestic livestock, rabbits and native rodents and predators.
  - d. Dwellings (nearest): Approximately 2 miles.
  - e. General location: Approximately 15 miles Northwest of Carlsbad, New Mexico.
  - f. Drainage: Internal
  - g. Surface Owner: The surface is owned by the Federal Government.

**A. P. D. (cont.)  
Thirteen Point Surface Use Plan  
Indian Hills Unit No. 1**

12. Operator Representatives:

David Nordt  
Drilling, Completion, & Workover Superintendent  
P. O. Box 552  
Midland, TX 79702  
800/351-1417  
915/682-1626

13. Certification:

I hereby certify that I, or someone under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions that presently exist; that the statements made in this plan are, to the best of my knowledge and belief, true and correct; and that the work associated with the operations proposed herein will be performed by MARATHON OIL COMPANY and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Date

12/19/97

D. P. Nordt



**DRILLING PROGRAM  
MARATHON OIL COMPANY**

**Indian Hills Unit #1**

1. Estimated KB Elevation: 3719'

<u>FORMATION</u>	<u>-----TOP-----</u>		<u>-----BASE-----</u>		<u>FLUID CONTENT</u>
	<u>MEASURED</u>	<u>SUBSEA</u>	<u>MEASURED</u>	<u>SUBSEA</u>	
Queen	Surface	+3719'	650'	+3069'	water
San Andres	650'	+3069'	2250'	+1469'	water
Glorietta	2250'	+1469'	3300'	+419'	
Delaware	3300'	+419'	4300'	-581'	
Bone Spring	4300'	-581'	5950'	-2231'	oil gas
Wolfcamp	5950'	-2231'	7520'	-3801'	oil gas
B/Permian Shale	7520'	-3801'	7530'	-3811'	
U. Penn	7530'	-3811'	7550'	-3831'	gas, oil, water

<u>FORMATION</u>	<u>--EST PSIG</u>	<u>SBHP-- PPG EMW</u>	<u>EST SBHT DEG f</u>	<u>PPM</u>	<u>H2S (obj. marker, etc.)</u>	<u>--SIGNIFICANCE--</u>
Bone Springs	1210	8.5			500	marker
Wolfcamp	1680	9.0				marker
B/Permian Shale 1810	9.0					objective pay
U. Penn	2050	9.0			5000	objective pay

2. See (1) above.

If any unexpected water or mineral bearing zones are encountered, they will be reported, evaluated, and protected as circumstances and regulations require.

3. **Pressure Control Equipment:**

9 5/8" Surface: 11" 3M annular tested to 200#/2000#, 11" 3M dual rams, choke manifold and mud cross, tested to 300#/3000#.

Auxiliary Equipment:

Surface Hole: Annular or rotating head w/air rig.

Intermediate Hole: N/A

Production Hole: Flow indicator, PVT, H<sub>2</sub>S Sensors, air packs, stroke counter, rotating head.

BOP systems will be consistent with API RP 53. Blowout preventers will be installed and tested prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers and casing will be pressure tested before drilling casing cement plugs.

Upper and lower kelly cocks with valve handle and safety valve and subs to fit all drillstring connections in use will be available on rig floor.

**A. P. D. (cont.)  
Thirteen Point Surface Use Plan  
Indian Hills Unit No. 1**

**Test Frequency**

1. When installed.
2. Anytime a pressure seal is broken (test confined only to affected equipment).
3. At least every 20 days.
4. Blind and pipe rams shall be activated each trip but not more than once/day.

**4. Casing and Cement Program:**

<b>---DEPTH---</b>		<b>SECTION LENGTH</b>	<b>HOLE SIZE</b>	<b>CSG SIZE</b>	<b>WT. PPF</b>	<b>THREADS</b>		<b>NEW USED</b>
<b>FROM</b>	<b>TO</b>					<b>GRADE</b>	<b>COUPLINGS</b>	
0	304'	304'		13.625"	IN PLACE			
0	3098'	3098'		9.625"	IN PLACE			
0	4800'	4800'	8.75"	7"	23	K-55	8rd, LTC	New
4800'	8200'	3400'	8.75"	7"	26	K-55	8rd, LTC	New

<b>Casing String</b>	<b>DV Depth</b>	<b>Stg.</b>	<b>Lead Tail</b>	<b>Amt SXS</b>	<b>Type Cement</b>	<b>Yield CF/SX</b>	<b>Wt. PPG.</b>	<b>Wt. TOC</b>	<b>Additives</b>
7"	±6400'	1	L	270	"H" Lite	1.28	15.3	5600'	5 pps Silica, .6% Halad 9, 3% salt, 3 pps Gilsonite
7"		2	L	800	65:35 POZ	1.91	12.6	5500'	5 pps, salt, 3 pps Gilsonite, 4% Gel, 1/4 pps Cello
7"		2	T	100	"C" Neat	1.32	14.8	±1000'	2% CaCl2

*Each stage will be preceded by an appropriate mud flush. Actual production hole volumes will be based on the caliper volume plus 15% excess.*

**Centralizer Program:**

- 7" Conventional centralizers middle of 1st joint, then every joint to 7500', and 1 centralizer every 4th joint thereafter to 1100'.

**5. Mud Program:**

<b>---DEPTH---</b>		<b>MUD TYPE</b>	<b>WEIGHT</b>		<b>WL</b>		<b>ADDITIVES</b>	<b>VISUAL MONTR.</b>
<b>FROM</b>	<b>TO</b>		<b>(PPG)</b>	<b>VIS</b>	<b>CC</b>	<b>CC</b>		
0	5700'	fresh	8.5	28-32	N/C		Gel, caustic	Reserve
5700'	8200'	cut brine	9.0	32-36	<20		Salt gel, starch, caustic	Steel Pits

*Sufficient quantities of additives will be on location to maintain above mud properties for any anticipated well conditions.*

**A. P. D. (cont.)**  
**Thirteen Point Surface Use Plan**  
**Indian Hills Unit No. 1**

6. Logging, Testing & Coring Programs:

<u>LOG/TEST/CORE/MUDLOG/OTHER</u>	<u>--INTERVAL--</u>		<u>REMARKS</u>
	<u>FROM</u>	<u>TO</u>	
DLL/MSFL/GR/CNL/LDT/CAL	TD	5000'	
LDT/CNL/GR/CAL	TD	surf casing	
MUD LOGGER	6000'	TD	ROP, Lithology, Gas Analysis, Chromatograph

NO CORES OR DST'S

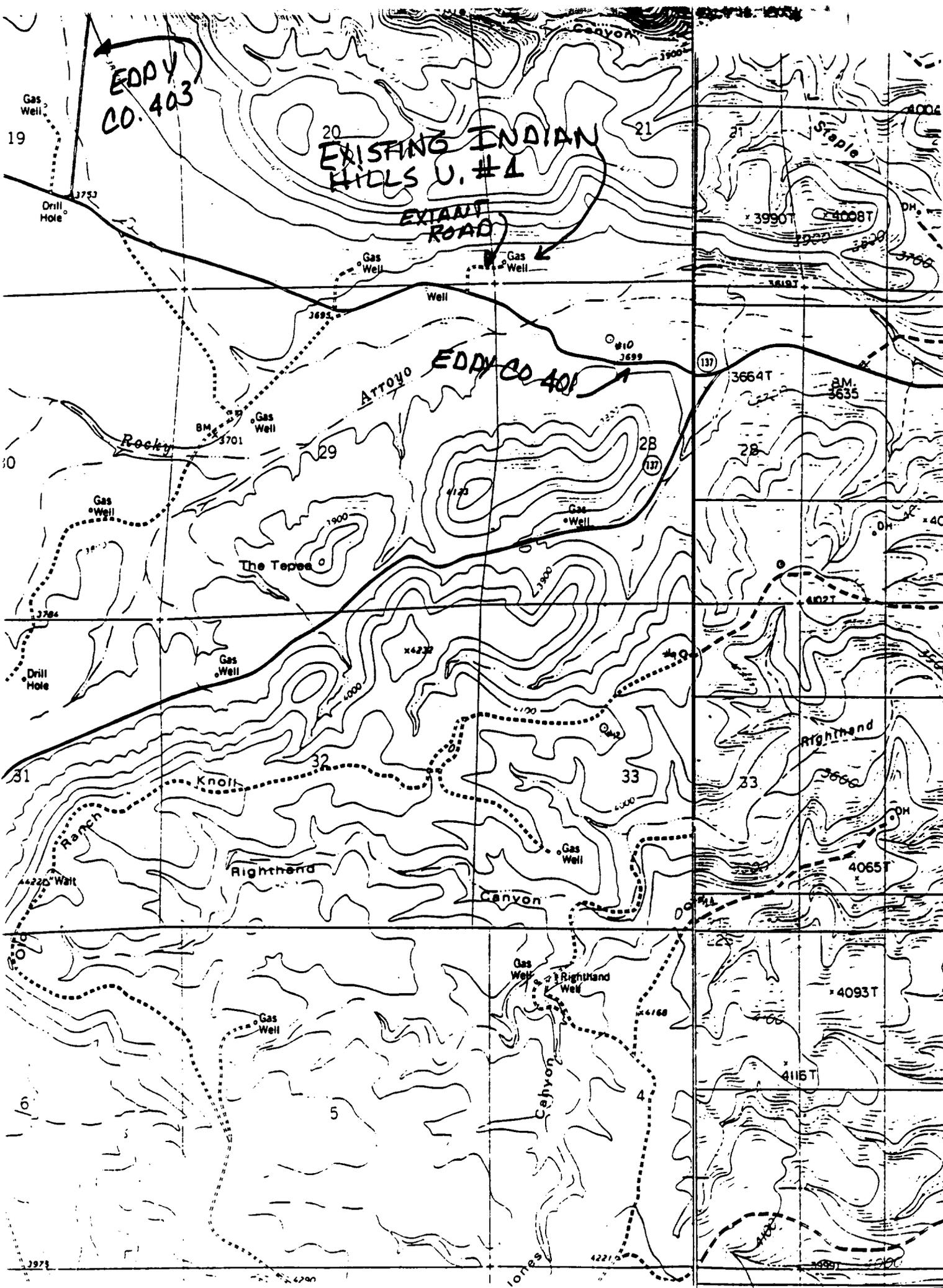
7. Abnormal Pressures, Temperatures or Potential Hazards:

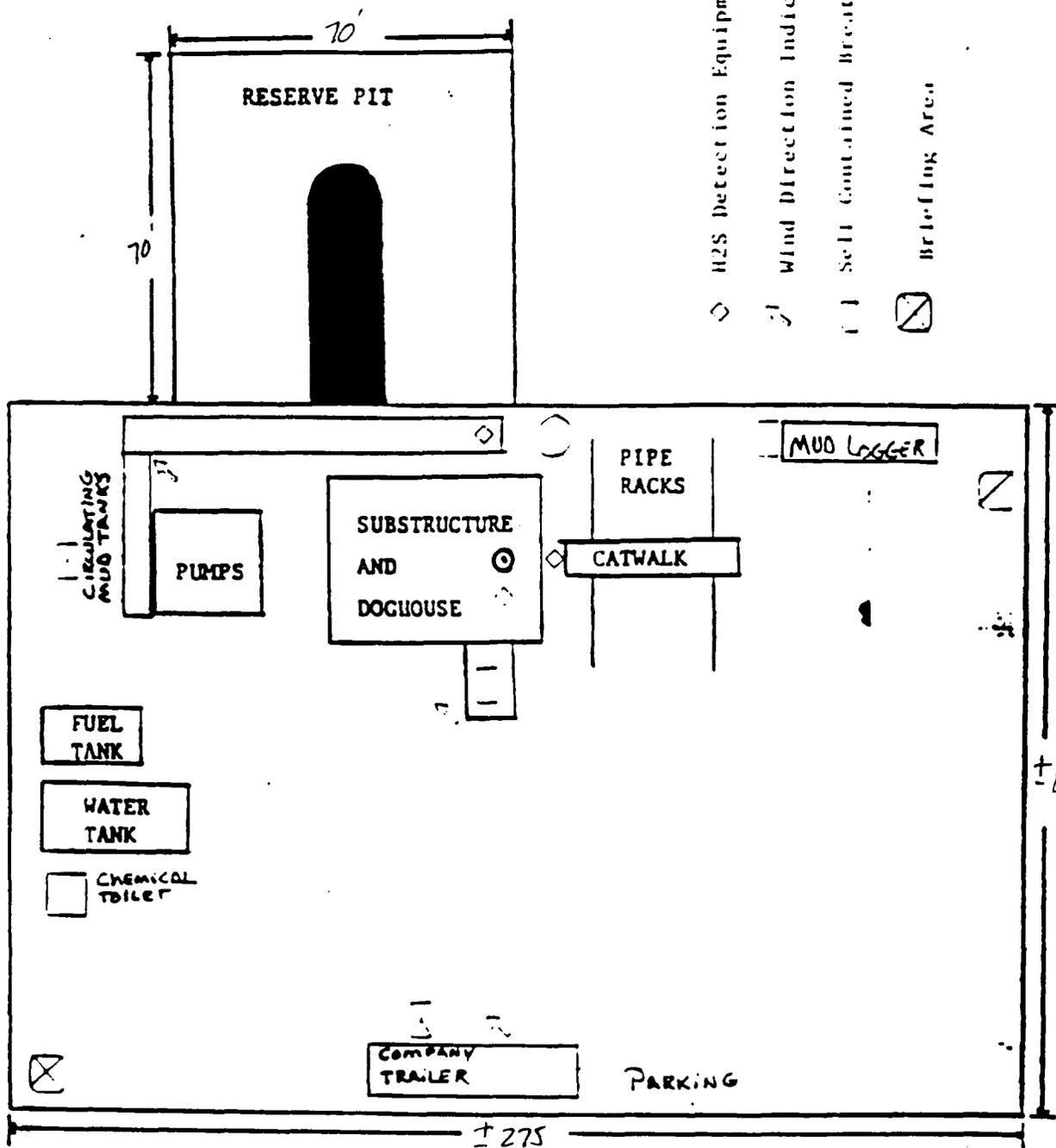
None anticipated. Possible H<sub>2</sub>S in Cisco & Upper Penn. See H<sub>2</sub>S Drilling Operations Plan.

8. Other Information:

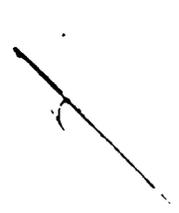
Anticipated Starting Date: As soon as possible.

Duration of Well: drilling - 25 days, completion - 10 days.





- ◇ H2S Detection Equipment
- ∩ Wind Direction Indicator
- Self Contained Breathing Equip.
- ⊗ Briefing Area



Prevailing Wind Direction  
Southwest

Foot-path for emergency  
egress

# MARATHON OIL COMPANY

## H2S DRILLING OPERATIONS PLAN

### *I. HYDROGEN SULFIDE TRAINING*

All contractors and subcontractors employed by Marathon Oil Company will receive or have received training from a qualified instructor within the last twelve months in the following areas prior to commencing drilling operations on this well.

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S)
2. Safety precautions
3. Operations of safety equipment and life support systems

In addition, contractor supervisory personnel will be trained or prepared in the following areas:

1. The effect of H<sub>2</sub>S on metal components in the system. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-down procedures when drilling or reworking a well, blowout prevention and well control procedures, if the nature of work performed involves these items.
3. The contents and requirements of the contingency plan when such plan is required.

All personnel will be required to carry documentation of the above training on their person.

### **II. H2S EQUIPMENT AND SYSTEMS**

#### **1. Safety Equipment**

The following safety equipment will be on location.

- A. Wind direction indicators as seen in attached diagram.
- B. Automatic H<sub>2</sub>S detection alarm equipment (both audio and visual).
- C. Clearly visible warning signs as seen on the attached diagram. Signs will use the words "POISON GAS" and "CAUTION" with a strong color contrast.
- D. Protective breathing equipment will be located in the dog house and at briefing areas as seen in the attached diagram.

## 2. WELL CONTROL SYSTEMS

### A. Blowout Prevention Equipment

Equipment includes but is not limited to:

- a. pipe rams to accomodate all pipe sizes
- b. blind rams
- c. choke manifold
- d. closing unit

Auxillary equipment added as appropriate includes:

- a. annular preventor \_\_\_\_\_
- b. rotating head \_\_\_\_\_
- c. mud- gas separator \_\_\_\_\_
- d. flare line and means of ignition \_\_\_\_\_
- e. remote operated choke \_\_\_\_\_

### B. Communication

The rig contractor will be required to have two-way communication capability. Marathon Oil Company will have either land-line or mobile telephone capabilities.

### C. Mud Program

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. Proper mud weight, safe drilling practices, and the use of H<sub>2</sub>S scavengers when appropriate will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

D. Drill Stem Test intervals are as follows:

DST No. 1	_____	ft. to	_____	ft.
DST No. 2	_____	ft. to	_____	ft.
DST No. 3	_____	ft. to	_____	ft.

Drill Stem Testing Safety Rules are attached.

## III. WELL SITE DIAGRAM

A complete well site diagram including the following information is attached.

1. Rig orientation
2. Terrain
3. Briefing areas
4. Ingress and egress
5. Pits and flare lines
6. Caution and danger signs
7. Wind indicators and prevailing wind direction



District I  
 PO Box 1990, Hobbs, NM 88241-1990  
 District II  
 PO Drawer DD, Artesia, NM 88211-0719  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
 Energy, Minerals & Natural Resources Department

ST  
 Form C-10  
 Revised February 10, 199  
 Instructions on bac  
 Submit to Appropriate District Office  
 5 Copie

OIL CONSERVATION DIVISION  
 P.O. Box 2088  
 Santa Fe, NM 87504-2088

RECEIVED  
 95 FEB 13 AM 8 52

AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

<sup>1</sup> Operator name and Address Marathon Oil Company P.O. Box 552 Midland, Texas 79702		<sup>2</sup> OGRID Number 014021
		<sup>3</sup> Reason for Filing Code CO 1-1-95
<sup>4</sup> API Number 30-015-10066	<sup>5</sup> Pool Name INDIAN BASIN MORROW	<sup>6</sup> Pool Code 78960
<sup>7</sup> Property Code 7260	<sup>8</sup> Property Name INDIAN HILLS UNT	<sup>9</sup> Well Number 1

II. <sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
M	21	21S	24 29E		660	SOUTH	660	WEST	EDDY

<sup>11</sup> Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County

<sup>12</sup> Lse Code F	<sup>13</sup> Producing Method Code	<sup>14</sup> Gas Connection Date	<sup>15</sup> C-129 Permit Number	<sup>16</sup> C-129 Effective Date	<sup>17</sup> C-129 Expiration Date
-----------------------------	-------------------------------------	-----------------------------------	-----------------------------------	------------------------------------	-------------------------------------

III. Oil and Gas Transporters

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> POD	<sup>21</sup> O/G	<sup>22</sup> POD ULSTR Location and Description
015694	NAVAJO REFINING CO P O BOX 159 ARTESIA NM 88211		0	UL G, S-23, T-21-S, R-23-E INDIAN BASIN GAS PLANT
				JAN 03 '95
				O. C. D. ARTESIA, OFFICE

IV. Produced Water

<sup>23</sup> POD	<sup>24</sup> POD ULSTR Location and Description
-------------------	--

V. Well Completion Data

<sup>25</sup> Spud Date	<sup>26</sup> Ready Date	<sup>27</sup> TD	<sup>28</sup> PBTD	<sup>29</sup> Perforations
<sup>30</sup> Hole Sie	<sup>31</sup> Casing & Tubing Size	<sup>32</sup> Depth Set	<sup>33</sup> Sacks Cement	

VI. Well Test Data

<sup>34</sup> Date New Oil	<sup>35</sup> Gas Delivery Date	<sup>36</sup> Test Date	<sup>37</sup> Test Length	<sup>38</sup> Tbg. Pressure	<sup>39</sup> Csg. Pressure
<sup>40</sup> Choke Size	<sup>41</sup> Oil	<sup>42</sup> Water	<sup>43</sup> Gas	<sup>44</sup> AOP	<sup>45</sup> Test Method

<sup>46</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Allen S. Wilson

Printed name:  
ALLEN S. WILSON

Title:  
PRODUCTION ENGINEER

Date:  
12-29-84

Phone:  
915/682-1626

OIL CONSERVATION DIVISION

Approved by: *[Signature]*  
 Title: *District Supervisor*  
 Approval Date: 1/17/95

<sup>47</sup> If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date
-----------------------------	--------------	-------	------

Form 3160-5  
(June 1990)

RECEIVED

Nov 11 11 17 AM '92

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OIL CONSERVATION DIVISION  
RECEIVED

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.  
NM- 07260  
6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE

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NOV 19 1992

O. C. D.  
ARTEONA

7. If Unit or CA, Agreement Designation  
INDIAN HILLS UNIT

8. Well Name and No.  
INDIAN HILLS UNIT # 1

9. API Well No.

10. Field and Pool, or Exploratory Area  
INDIAN BASIN (MORROW))

11. County or Parish, State  
EDDY CO. NEW MEXICO

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
Marathon Oil Company

3. Address and Telephone No.  
P.O. Box 552 Midland, Tx. 79702 915 682 1626

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
UNIT LETTER M, 660' FSL & 660' FWL SECTION 21,T-21-S, R-24-E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)  
8/12/92 MIRU PU. SICP-725#, SITP-2400#.KILLED WELL W/ BRINE WATER. INSTALLED 6" 1500 SERIES MANUAL BOP. COULD NOT RELEASE 7" LOK-SET PACKER. RELEASED BAKER ON-OFF TOOL ABOVE PACKER @ 9123'. (OK'D BY JIM AMOS, BLM CARLSBAD.) RIH W/ 7" CIBP AND SET SAME @ 9115'. SPOTTED 10 SX CLASS "C" ON TOP OF CIBP. REMOVED BOP & RU PIPE JACKS & RIH W/ 7" CSG. SPEAR. PULLED SLIPS, RIH W/ FREE POINT AND FOUND CSG. FREE TO 6125'. CUT 7" CSG. @ 6100' AND PULLED SAME. RIH W/ 2-3/8" TUBING TO 6175'. SPOTTED 40 SX. CLASS "C" + 2% CACL2 @ 6175'. WOC 4 HRS. AND TAG PLUG @ 6002'. PULLED TUBING TO 3117'. SPOTTED 40 SX CLASS "C" + 2% CACL2. WOC OVERNIGHT. TAGGED PLUG @ 2952'. PULLED TUBING TO 317'. SPOTTED 35 SX. CLASS "C" + 2% CACL2. PULLED TUBING TO 62', SPOTTED 16 SX. CLASS "C" + 2% CACL2 TO SURFACE. REMOVED WELLHEAD AND CUT 9-5/8" CASING 3" BELOW G.L. AND INSTALLED PLATE AND DRY HOLE MARKER. FILLED CELLAR AND CLEARED LOCATION. ABANDONED LOCATION ON AUGUST ON AUGUST 22, 1992.

M

Approved as to plugging of the well bore.  
Liability under bond is retained until  
surface restoration is completed.

14. I hereby certify that the foregoing is true and correct

Signed Cecil T. Pearce CECIL T. PEARCE

Title DRILLING SUPERINTENDENT

Date 11/2/92

(This space for Federal or State office use)

Approved by \_\_\_\_\_  
Conditions of approval, if any:

Title \_\_\_\_\_

Date 11/18/92

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See instruction on Reverse Side

Form 3160-5  
June 1990)  
OIL CONSERVATION DIVISION  
RECEIVED

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED  
APR - 7 1992

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

5 Lease Designation and Series No.  
NM - 07260 - F  
6 If Indian, Allottee or Tribe Name

O. C. D.  
REGIONAL OFFICE

92 APR 11 AM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

Type of Well  
 Oil Well  Gas Well  Other

Name of Operator  
 MARATHON OIL COMPANY ✓

Address and Telephone No.  
 P. O. Box 552, Midland, Texas 79702

Location of Well (Footage, Sec., T., R., M., or Survey Description)  
 Unit M, 660' FSL and 660' FWL, Sec. 21, T-21-S, R-24-E

Indian Hills Unit  
 8. Well Name and No. 1  
 9. API Well No.  
 10. Field and Pool, or Exploratory Area  
 Indian Basin - Morrow  
 11. County or Parish, State  
 Eddy Co., NM

CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

13 Describe Proposed or Complete Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and bearings and true vertical depths for all markers and zones pertinent to this work.)

Marathon Oil Company proposes to plug and abandon the Indian Hills Unit Well No. 1. A copy of the procedure and wellbore diagram are attached for your approval. An AFE has been written and sent out to the working interest owners. Commencement of the work will be delayed until approval is obtained from the working interest owners.

RECEIVED  
MAR 18 12 26 PM '92  
CARLSON  
AREA  
OFFICE

14 I hereby certify that the foregoing is true and correct

Signed [Signature] Title Operations Superintendent Date 3-3-92

This space for Federal or State office use:  
 Approved by [Signature] Title \_\_\_\_\_ Date 4-3-92  
 Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statement or representations as to any matter within its jurisdiction.

INDIAN HILLS UNIT NO. 1  
660' FSL and 660' FWL  
Unit Letter "M"  
Section 21, T-21-S, R-24-E  
Eddy County, New Mexico

Date: March 3, 1992

EL: 3,670' KB: 3,681'

OD: 10,212' PBD: 9,300'

Surface Casing: 13-3/8", 48#/ft., set @ 304' (960 sx) TOC - Surface

Intermediate Casing: 9-5/8", 36#/ft., set @ 3,098' (1,263 sx) TOC by temperature survey at 184'. Then pumped 50 sxs Incor Neat to surface.

Production Casing: 7", 23#/ft, 26#/ft, 29#/ft, @ 10,159' (700 sx), TOC - 6400'

Production Tubing: 2-3/8", set @ 9,155', Baker Lok-Set @ 9,124' with the following released downhole (+54'). Mechanical tubing release, 1 jt of 2-3/8" tubing, 4' x 2-3/8" sub, firing head, 14' of steel carrier and bull plug.

Perforations: Morrow 9200'-9214', 4 JSPF, 56 holes.

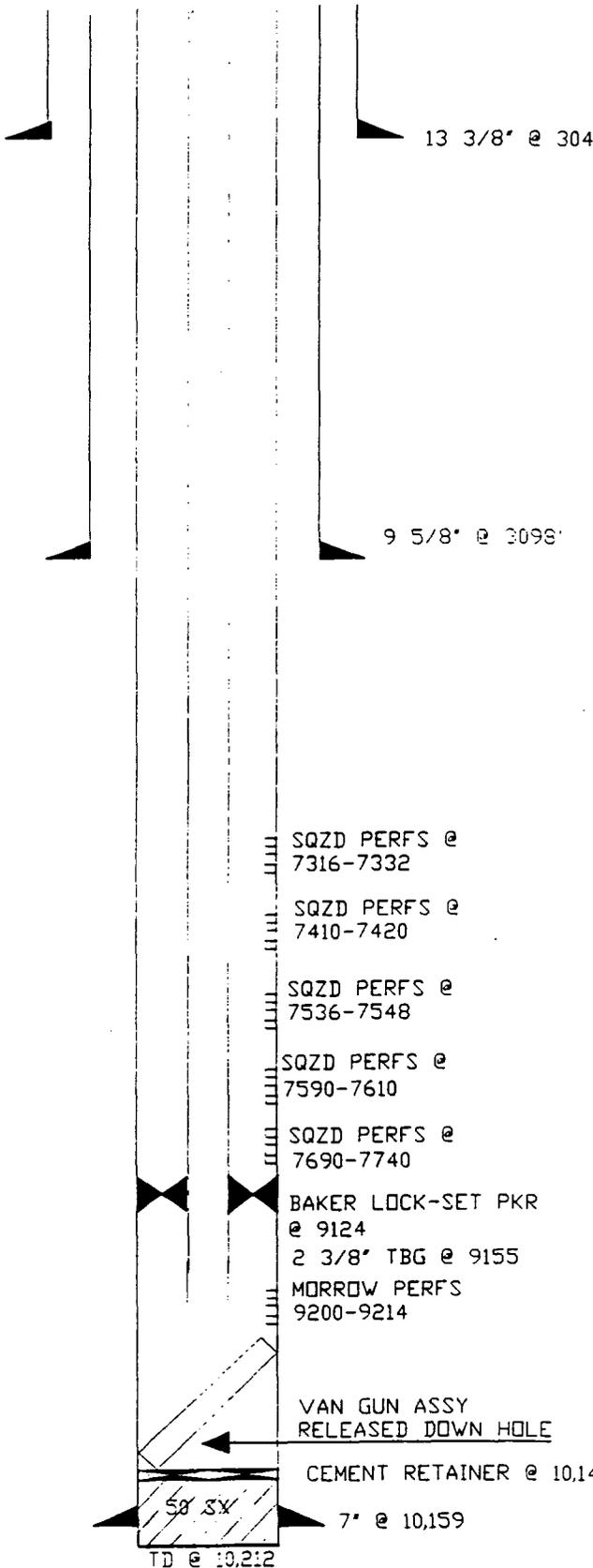
Squeezed Perforations: Upper Penn 7316-32', 7410-20', 7536-48', 7590-7610', 7690-7740'.

Procedure to Plug and Abandon

1. Set anchors. MIRU PU.
2. ND wellhead. NU BOP's.
3. Release Baker Lok-Set packer and POOH.
4. GIH with 7" CIBP for 23-29#/ft. pipe on 2-3/8" workstring and set the CIBP at 9,150'. Pull up and put a 50' cement plug on top of the CIBP which will be approximately 8 sxs of Class "C" cement.
5. Pull up to + 9,099' and fill the casing with 9 ppg mud to 6,000'. POOH with the tubing.
6. ND the BOP's. ND the tubing head. NU a hydrill on the 12" 3000# WP casing head spool.
7. RU spear into the 7" casing.
8. RU wireline company and pull tension on the 7" casing and cut the casing at 6,100'. RD wireline company.

9. Circulate the annulus of the 7" with 9 ppg mud to ensure that the Bone Spring zone is not active.
10. POOH with the 7" casing, laying it down.
11. GIH with 2-3/8" tubing open-ended and place a 100' cement plug across the cut off 7" casing, (50' of the plug should be below the cut off point and 50' above). This will take approximately 24 sxs of Class "C" cement.
12. Pull up the hole to + 6,049' and fill the open hole with 9 ppg mud to 3,098'.
13. Pull up the hole to 3,098' and place a 100' cement plug across the 9-5/8" casing shoe. (50' of the plug should be below the shoe and 50' above). This will take approximately 32 sxs of Class "C" cement.
14. Pull up the hole to 3,040 and fill the 9-5/8" casing with 9 ppg mud to 304'.
15. Pull up the hole to 304' and place a 100' cement plug across the surface casing shoe (50' of the plug should be below the shoe and 50' above). This will take approximately 33 sxs of Class "C" cement.
16. Pull up the hole to 250' and fill the 9-5/8" casing with 9 ppg mud to 50'.
17. Pull up the hole to 50' and place a 50' cement plug to surface. This will take approximately 16 sxs of Class "C" cement.
18. ND the hydrill and cut the casing off 3' below what will be final restored ground level. The wellbore will then be covered with at least a 1/4" thick plate and welded in place or a 4' pipe, 10 feet in length, 4' above ground and embedded in cement may be used. The well location and identity shall be permanently inscribed on either item. If the metal plate is used a small weep hole shall be left.
19. The cellar shall be filled with suitable material and the surface restored as directed by the BLM officer in charge at the location.

# WELL DATA SHEET



FIELD: INDIAN BASIN

LEASE & WELL NO: INDIAN HILLS UNIT # 1

LOCATION: 660' FSL & 660' FWL  
SEC 21, TWP 21S, RNG 24E

COUNTY AND STATE: EDDY CO., NEW MEXICO

WELL STATUS: S. I.

TD 10,212' PBD 10,140' GL 3670' KB 3681'

SURFACE CASING: 13 3/8" @ 304' W/960 SX  
TDC SURFACE

INTERMEDIATE CASING: 9 5/8" @ 3098' W/1263 SX  
TDC OF CMT BY TEMP SURVEY @ 1941' T-EN  
PUMPED 50 SX INCOR HEAT TO SURFACE

9 5/8" @ 3098'

PRODUCTION CASING: 7" 23#, 26#, 29# @ 10,159  
WITH 700 SX. TDC @ 6400'. TEMP SURVEY

TUBING: 2 3/8" @ 9155. BAKER LOCKSET PKR  
@ 9124' WITH THE FOLLOWING RELEASED DOWNHOLE  
MECHANICAL TBG RELEASE. 1 JOINT OF  
2 3/8" TBG, a 4' SUB OF 2 3/8", FIRING HEAD AND  
14' OF HOLLOW STEEL CARRIER AND BULLPLUG.

DST: 6457-6527, 6634-6715, 7132-7160, 7331-7120,  
8336-8376, 8561-8576, 8550-8613, 9162-9225, 9230-9371.

PRESENT COMPLETION: MORROW 9200-9214 4JSPP  
TOTAL 56 HOLES

Form 3160-5  
(June 1990)  
OIL CONSERVATION DIVISION  
RECEIVED

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

92 APR 6 AM 9 49

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

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SUBMIT IN TRIPLICATE

MAR - 5 1992

1. Type of Well  
 Oil Well  Gas Well  Other Temporarily Abandoned

2. Name of Operator  
 Marathon Oil Company

3. Address and Telephone No.  
 P.O. Box 1324 Artesia, NM 88210 (505) 457-2621

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
 Unit M; 660' FSL and 660' FWL; Sec 21-T21S-R24E

O. C. D.  
ARTESIA OFFICE

5. Lease Designation and Serial No.  
 NM-07260 - F

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation  
 Indian Hills Unit

8. Well Name and No.  
 Indian Hills Unit #

9. API Well No.  
 30015100660000

10. Field and Pool, or Exploratory Area  
 Morrow (Indian Basin)

11. County or Parish, State  
 Eddy County, NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other Mechanical Integrity Test
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

See attachment for procedure

(over)

RECEIVED  
 FEB 10 9 23 AM '92  
 CARLETON COURSE  
 AREA HEADQUARTERS

14. I hereby certify that the foregoing is true and correct  
 Signed Tim Winters Title Gang Pusher Date 2/4/92

(This space for Federal or State office use)  
 Approved by David A. Glass Title PETROLEUM ENGINEER Date 3/2/92  
 Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See instruction on Reverse Side

MECHANICAL INTEGRITY TEST PROCEDURE  
Indian Hills Unit No. 1  
Eddy County, New Mexico

**DATE:** February 17, 1992

**PURPOSE:** Run mechanical integrity test. (MIT)

**ELEVATION:** 3670' GL, 3681' KB

**PSTD:** 9300'

**SURFACE CASING:** 13 3/8" set @ 304'

**INTERMEDIATE CASING:** 9 5/8" set @ 3098'

**PRODUCTION CASING:** 7" set @ 10159'

**TUBING:** 2 3/8" set @ 9200'

**PACKER:** Guiberson KUL 30 set @ 9124'

**SAFETY PRECAUTION:** Monitor H<sub>2</sub>S at the wellhead while running test.

1. Notify BLM representative, Duncan Whitlock, 48 hours prior to running MIT. (BLM telephone number (505) 887-6544)
2. RU Service Company.
3. Test line and valves to 500 psig.
4. Install pressure gauges with pen records on casing annulus.
5. Fill tubing-casing annulus with 2% KCl water and pressure test to 500 psig.
6. Monitor pressure for 15 minutes.
7. RD Service Company.
8. Send pressure chart to Midland Production office.

TLW/all

Submit 5 Copies  
Appropriate District Office  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

RECEIVED

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-104  
Revised 1-1-89  
See Instructions  
at Bottom of Page

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

JUN 07 '89

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

C. D.  
ARTESIA, NM

Santa Fe File			
Transporter	Oil		
Operator	Gas		

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Operator Marathon Oil Company	Well API No. 30-015-10066
Address P. O. Box 552; Midland, Texas 79702	
Reason(s) for Filing (Check proper box) <input type="checkbox"/> Other (Please explain)	
New Well <input type="checkbox"/>	Change in Transporter of: <input type="checkbox"/> Dry Gas <input type="checkbox"/>
Recompletion <input checked="" type="checkbox"/>	Oil <input type="checkbox"/>
Change in Operator <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/> Condensate <input type="checkbox"/>

If change of operator give name and address of previous operator \_\_\_\_\_

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JUN 23 1989

II. DESCRIPTION OF WELL AND LEASE

OIL CONSERVATION DIV.

Lease Name Indian Hills Unit	Well No. 1	Pool Name, including Formation Indian Basin (Morrow)	Kind of Lease State, Federal or Fee	Lease No. N/A
Location Unit Letter <u>M</u> : <u>660</u> Feet From The <u>South</u> Line and <u>660</u> Feet From The <u>West</u> Line Section <u>21</u> Township <u>21S</u> Range <u>24E</u> , NMPM, Eddy County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Marathon Oil Company, Indian Basin Gas Plant	P. O. Box 1324; Artesia, New Mexico 88210
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Marathon Oil Company, Indian Basin Gas Plant	P. O. Box 1324; Artesia, New Mexico 88210
If well produces oil or liquids, give location of tanks.	Unit   Sec.   Twp.   Rge.   Is gas actually connected?   When ?
	23   21S   23E   Yes   1/4/89

If this production is commingled with that from any other lease or pool, give commingling order number: \_\_\_\_\_

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
Date Spudded	Date Compl. Ready to Prod.	Total Depth			P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation	Top Oil/Gas Pay			Tubing Depth			
Perforations					Depth Casing Shoe			
TUBING, CASING AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET			SACKS CEMENT		

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)

Date First New Oil Run To Tank	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas- MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature J. R. Jenkins  
Printed Name J. R. Jenkins/Hobbs Production Superintendent  
Date 6/6/89  
Title \_\_\_\_\_  
Telephone No. (915) 682-1626

OIL CONSERVATION DIVISION

Date Approved JUN 21 1989

By Mike Williams

Title WIRELESSOR, DISTRICT II

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- 1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- 2) All sections of this form must be filled out for allowable on new and recompleted wells.
- 3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- 4) Separate Form C-104 must be filed for each pool in multiply completed wells.

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

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WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other  APR 6 11 21 AM '89

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other  CARLSBAD BOE LRS

2. NAME OF OPERATOR  
Marathon Oil Company

3. ADDRESS OF OPERATOR  
P. O. Box 552 Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements).  
At surface Unit M, 660' FSL & 660' FWL  
At top prod. interval reported below  
At total depth

APR 18 '89  
O. C. D.  
ARTESIA, OFFICE

5. LEASE DESIGNATION AND SERIAL NO.

NM- 07260

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Indian Hills Unit

8. FARM OR LEASE NAME  
Indian Hills Unit

9. WELL NO.  
1

10. FIELD AND POOL, OR WILDCAT  
Indian Basin - Morrow

11. SEC. T., R., M., OR BLOCK AND SURVEY OR AREA  
Sec. 21, T-21-S, R-24-E

12. COUNTY OR PARISH  
Eddy

13. STATE  
NM

15. DATE SPUDDED 2-26-63 16. DATE T.D. REACHED 6-8-63 17. DATE COMPL. (Ready to prod.) Recompleted 6-27-87 18. ELEVATIONS (OF. RKB, RT, GR, ETC.)\* GR 3670' KB 3681' 19. SLEV. CASINGHEAD 3670'

20. TOTAL DEPTH, MD & TVD 10,212' 21. PLUG, BACK T.D., MD & TVD 9300' 22. IF MULTIPLE COMPL. HOW MANY\* 23. INTERVALS DRILLED BY 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD) 9200 - 9214' Morrow 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN None on recompletion 27. WAS WELL CORDED No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8	48	304'	Unk.	960 sx in 8 stages	None
9-5/8	36	3,098'	12-1/4"	1263 sx	None
7"	23, 26, & 29	10,159'	8-3/4"	700 sx in 2 stages	None

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-3/8"	9200'	9124'

31. PERFORATION RECORD (Interval, size and number)  
9200' - 14' (4 JSPF, .41" dia., 56 holes)  
Tubing conveyed gun

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
7410-20'	Cmt sqz w/225 sx C1 "H"
9200-14'	Perforated 4 JSPF

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)					
----	Flowing	Producing					
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
7-1-88	24	1.25"	→	0	3103	0	----
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
2071	----	→	0	3103 CAOF	0	----	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  
Sold

TEST WITNESSED BY  
Ralph Skinner

35. LIST OF ATTACHMENTS  
Form 3160-5, NMOCD Form C-122. Logs & inclination survey previously filed.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

SIGNED J. R. Jenkins TITLE Hobbs Production Sup't. DATE APR 17 1989  
04-03-89

\*(See Instructions and Spaces for Additional Data on Reverse Side) CARLSBAD, NEW MEXICO

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	TOP	
				MEAS. DEPTH	TRUE VERT. DEPTH
Grayburg	232	695	Dolomite & Sand	232	
San Andres	695	1,710	Dolomite	695	
Glorieta	2,395	2,985	Dolomite & Sand	2,395	
Bone Spring	2,985	3,300	Dolomite & Sand	2,985	
Wolfcamp	6,613	7,300	Limestone & Shale	2,985	
Upper Penn	7,305	7,900	Dolomite	6,613	
Lower Strawn	8,400	8,680	Limestone	7,305	
Atoka	8,684	9,000	Limestone & Sand	8,400	
Morrow	9,022	9,400	Limestone & Sand	8,684	
				9,022	

DISTRIBUTION	
DATE	
FILE	
U.S.D.	
LAND OFFICE	
TRANSPORTER	OIL
	GAS
PRODUCTION OFFICE	
OPERATOR	

**NEW MEXICO OIL CONSERVATION COMMISSION**  
**WELL LOCATION AND ACREAGE DEDICATION PLAT**  
 SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

FORM 0128  
 Revised 5/83  
**RECEIVED**

**JUN 16 '89**

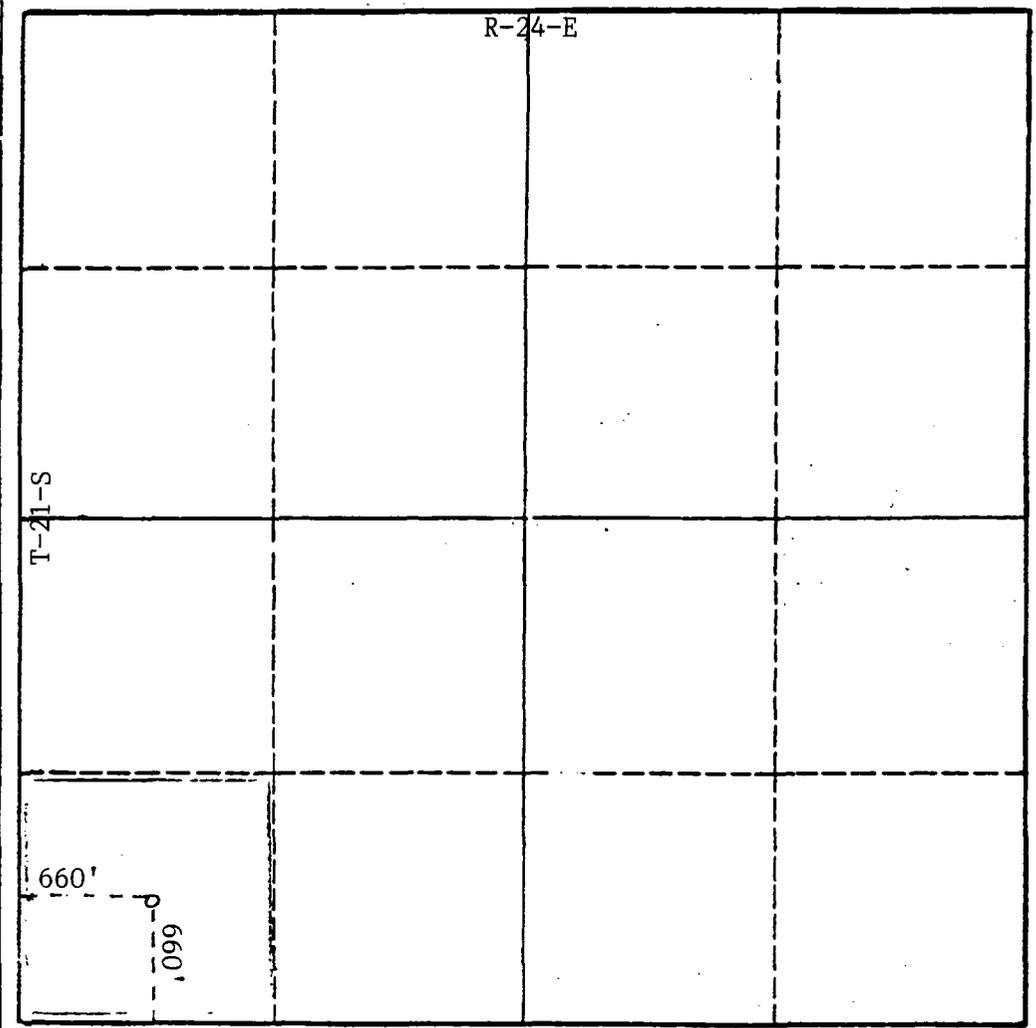
**SECTION A**

Operator Marathon Oil Company		Lease Indian Hills Unit		Well No. 1
Unit Letter M	Section 21	Township 21-S	Range 24-E	County Eddy
Actual Footage Location of Well: 660 feet from the South line and 660 feet from the West line				
Ground Level Elev. 3670'	Producing Formation Morrow	Pool Indian Basin	Dedicated Acreage: 640 Acres	

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES \_\_\_\_\_ NO \_\_\_\_\_. ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1935 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES \_\_\_\_\_ NO \_\_\_\_\_. If answer is "yes," Type of Consolidation \_\_\_\_\_
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

**SECTION B**



**CERTIFICATION**

I hereby certify that the information in SECTION A above is true and complete to the best of my knowledge and belief.

J.R. Jenkins

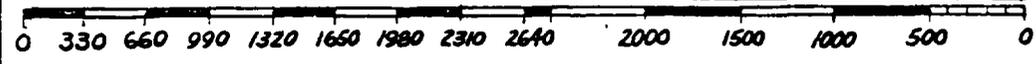
Name  
 Hobbs Prod. Superintendent  
 Position  
 Marathon Oil Company  
 Company  
 June 13, 1989  
 Date

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed \_\_\_\_\_

Registered Professional Engineers  
 and/or Land Surveyors

Joe Hewitt Jr.  
 Certificate No. 3280



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT TO PUBLIC  
(Other instructions  
reverse side)  
88210

Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

NM - 07260

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS RECEIVED

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR

3. ADDRESS OF OPERATOR  
Marathon Oil Company

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface  
Unit M, 660' FSL & 660' FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

GL 3670' KB 3681'

7. UNIT AGREEMENT NAME

Indian Hills Unit

8. FARM OR LEASE NAME

Indian Hills Unit

9. WELL NO.

1

10. FIELD AND POOL OR WILDCAT

Indian Basin-Morrow

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec. 21, T-18-S, R-24-E

12. COUNTY OR PARISH

Eddy

13. STATE

NM

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other) Recomplete to Morrow

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Began recompletion operations on June 17, 1987.

Rigged up X-pert Well Service. Released packer and pulled out of hole with packer and tubing Set cement retainer on wireline at 7385'. Stung into retainer with 2-7/8" tubing. Cement squeezed Upper Penn perforations, 7410'-20', with 225 sx Cl "H" cement to 3000 psi. WOC - 2 days. Drilled out retainer and cement to 7389'. Tested previously squeezed perforations 7316'-32' to 1000 psi. Drilled out cement to 7440'. Tested squeezed perforations 7410'-20' to 1000 psi. Drilled out retainer and cement to 7561'. Tested previously squeezed perforations 7536'-48' to 1000 psi. Drilled out retainer and cement to 7656'. Tested previously squeezed perforations 7590'-7610' to 1000 psi. Drilled out retainer and cement to 7760'. Tested previously squeezed perforations 7690'-7740' to 1000 psi. Cleaned out hole to 9300'. Ran in hole with tubing conveyed perforating gun, 7" Baker Lok-set packer, and on-off tool on 2 3/8" tubing. Hydrotested tubing to 5000 psi. Set packer at 9124'. Perforated Morrow formation 9200'-9214' with 4 JSPF .41" diameter - 56 holes.

RECEIVED

JUN 23 1989

OIL CONSERVATION DIV.  
SANTA FE

Post FD-2  
4-21-89  
P&A W/Penn

18. I hereby certify that the foregoing is true and correct

SIGNED [Signature] -J. R. Jenkins TITLE Hobbs Production Sup't. DATE 04-03-89

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED FOR RECORD

APR 17 1989

\*See Instructions on Reverse Side

SJS  
CARLSBAD, NEW MEXICO

RECEIVED

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual		DATE APR 15 1989 7-1-87									
Company Marathon Oil Co.		Connection Air O. C. D. ARTESIA OFFICE									
Field Indian Basin <i>Morrow</i>		Formation Morrow									
Completion Date 6-27-87	Total Length 10212	Plug Back To 10140	Elevation 3681 KB								
Cas. Size 7	Set At 10159	Perforations From 9200 To 9214	Well No. 1								
Tub. Size 2 3/8	Set At 7369	Perforations From To	Unit Sec. Top. Day M 21 21 24								
Type Well - Single - Prodenhead - G.C. or G.O. Multiple Single			Pecker Set At 7369								
Producing thru Tbg		Reservoir Temp. °F 166 @ 9200	Mean Annual Temp. °F 60								
L 9200		H 9200	Baro. Press. - P <sub>a</sub> 13.2								
C <sub>g</sub> .598	% CO <sub>2</sub> .653	% N <sub>2</sub> .295	% H <sub>2</sub> S Prover								
Meter Run 3.068		Turn Flg									
FLOW DATA											
NO.	Prover Line Size	x	Orifice Size	Press. p.s.i.g.	Diff. In.	Temp. °F	TUBING DATA		CASING DATA		Duration of Flow
							Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI								2490			
1.	3.068 x 1.250			675	9	77		2350			1 HR.
2.	3.068 x 1.250			675	16	75		2220			1 HR.
3.	3.068 x 1.250			675	30	72		2015			1 HR.
4.	3.068 x 1.250			675	56	74		1700			1 HR.
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Super. Compens. Factor, F <sub>scv</sub>	Rate of Flow O. Field				
1	7.577	78.70	688.2	.9840	1.293	1.052	798				
2	7.577	104.93	688.2	.9859	1.293	1.054	1068				
3	7.577	143.69	688.2	.9887	1.293	1.055	1468				
4	7.577	196.31	688.2	.9868	1.293	1.054	2000				
5											
NO.	$\eta$	Temp. °R	T <sub>r</sub>	Z	Gas Liquid Hydrocarbon Ratio _____ Dry						
1	1.02	537	1.52	.904	A.P.I. Gravity of Liquid Hydrocarbons _____						
2	1.02	535	1.51	.901	Specific Gravity Separator Gas .598						
3	1.02	532	1.50	.899	Specific Gravity Flowing Fluid X X X X X						
4	1.02	534	1.51	.901	Critical Pressure 672 P.S.I.A.						
5					Critical Temperature 354 °R						
P <sub>1</sub> 2503.2		P <sub>2</sub> 6266									
NO.	P <sub>1</sub>	P <sub>2</sub>	P <sub>1</sub> <sup>2</sup>	P <sub>2</sub> <sup>2</sup>	(1) $\frac{P_1^2}{P_2^2 - P_1^2} = 1.942$	(2) $\left[\frac{P_1^2}{P_2^2 - P_1^2}\right]^n = 1.552$					
1	5585	2366.4	5600	666							
2	4987	2239.6	5016	1250							
3	4113	2041.7	4168	2098							
4	2935	1743.2	3039	3227							
5											
Absolute Open Flow 3,103					Mold # 15.023		Angle of Slope @ 56.5				
Slope: _____					Slope, n 662						
Approved by Commission:		Conducted by: BUMP & LAWSON		Calculated by: B & D WELL TESTERS		Checked by: Carl A. Bagwell					

RECEIVED

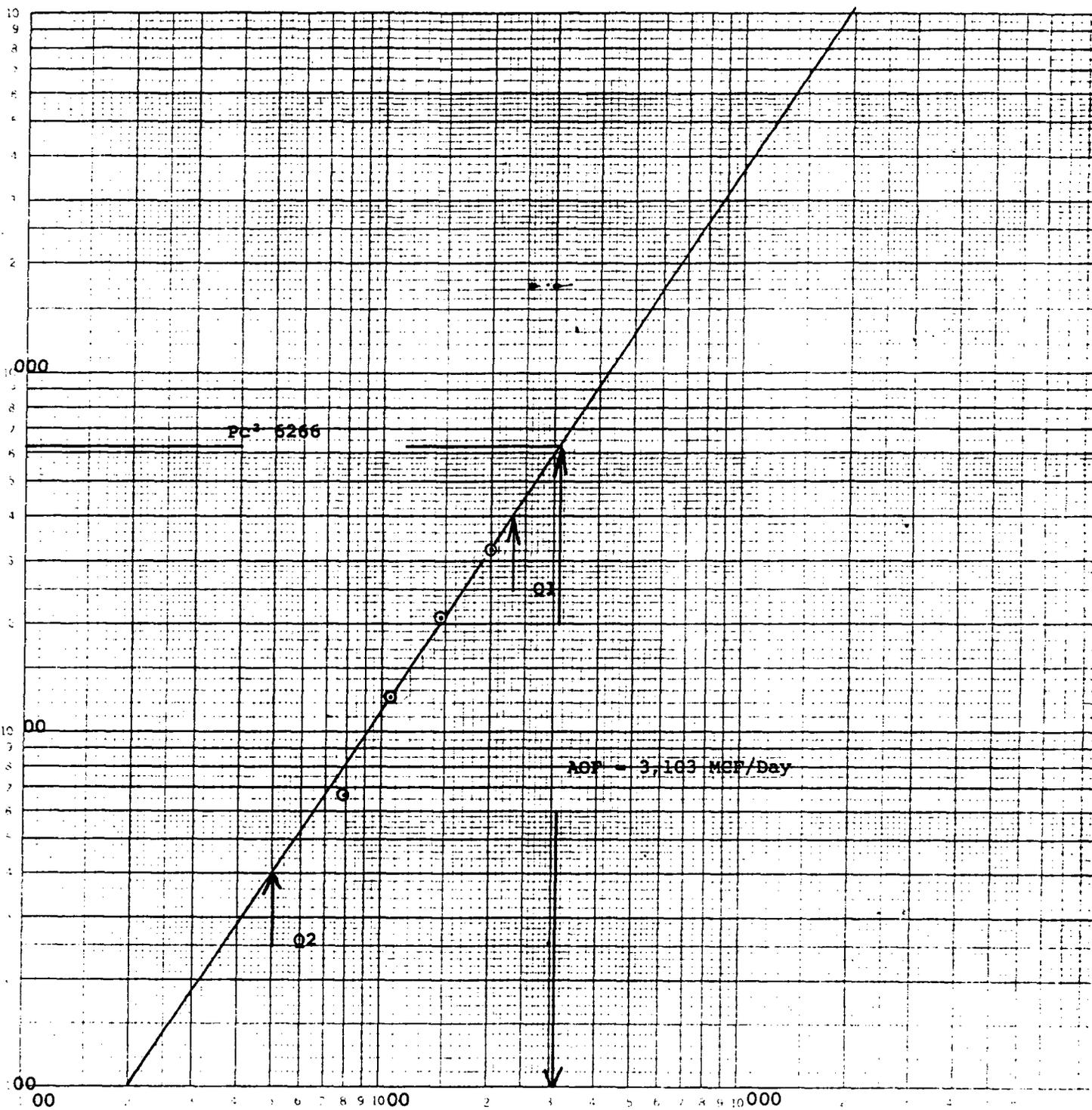
JUN 23 1989

OIL CONSERVATION DIV  
 SANTA FE

Marathon Oil Co.  
 Indian Hills Unit Well #1  
 Eddy County  
 7-1-87

46 7400

LOGARITHMIC 3 X 3 CYCLES  
 KEUFFEL & ESSER CO. MADE IN U.S.A.



Q = MCF/Day

Q1 = 2300 = 3.361728  
 Q2 = 500.8 = 2.699728  
 N = .662000

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE  
(Other instructions on re-  
verse side)

Budget Bureau No. 1004-  
Expires August 31, 1985

LEASE DESIGNATION AND SERIAL

NM 07260

IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL  GAS WELL  OTHER  APR 27 1987

2. NAME OF OPERATOR Marathon Oil Company

3. ADDRESS OF OPERATOR SANTA FE  
P. O. Box 552, Midland Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)  
See also space 17 below  
At surface  
Unit M, 660 FSL and 660' FWL

RECEIVED BY  
APR 17 1987

7. UNIT AGREEMENT NAME  
Indian Hills Unit

8. FARM OR LEASE NAME  
Indian Hills Unit

9. WELL NO.  
1

10. FIELD AND POOL OR WILDCAT  
Indian Basin - Upper Penn

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 21, T-21-S, R-24-E

12. COUNTY OR PARISH  
Eddy

13. STATE  
N. Mexico

14. PERMIT NO.

15. ELEVATIONS (Show whether OF, RT, GR, etc.)  
GL: 3670' KB: 3681'

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

(Other) Recomplete in the Morrow X

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Marathon Oil Company proposes to recomplete the Indian Hills Unit Well No. 1 in the Morrow formation. A copy of the workover procedure and well diagram are attached. This work is scheduled to begin approximately May 4, 1987.

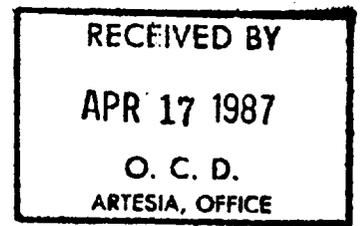
18. I hereby certify that the foregoing is true and correct  
SIGNED Eve M. Pungle TITLE Engineer DATE April 15, 1987

(This space for Federal or State office use)  
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

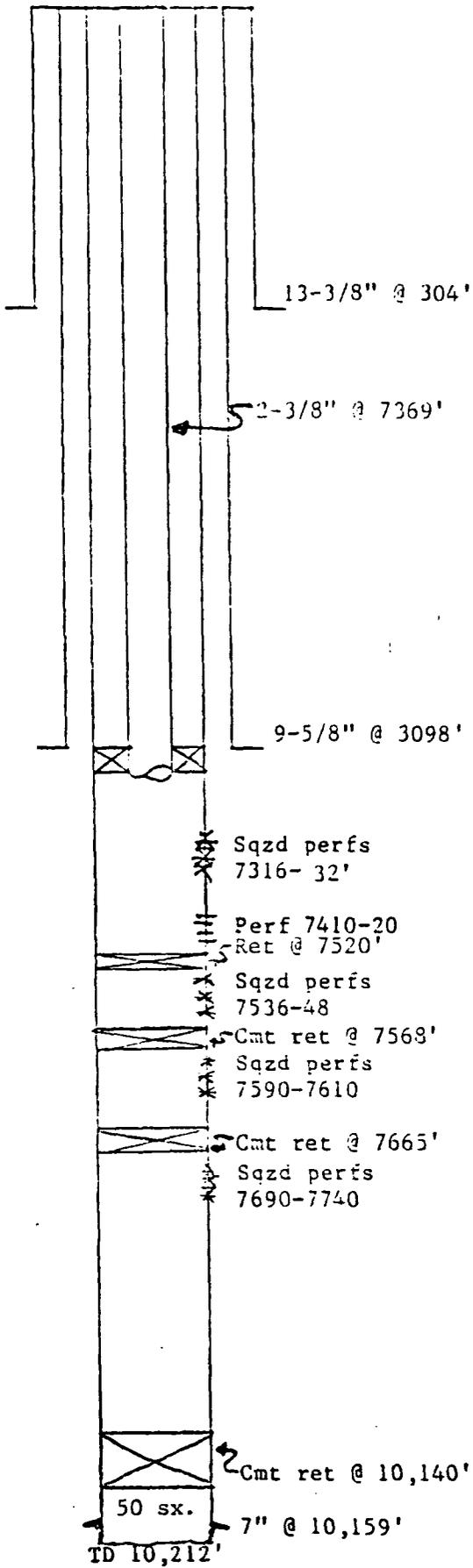
\*See Instructions on Reverse Side

WORKOVER PROCEDURE

INDIAN HILLS UNIT WELL NO. 1



1. MIRU pulling unit. N/U BOP's.
2. N/U BOP's.
3. R/U kill truck and establish pump-in rate (perfs 7410'-20').
4. Release packer and POOH w/ 2 3/8" tubing.
5. R/U wireline company and set cement retainer @ ±7350'.
6. P.U 2 7/8" workstring and sting into retainer.
7. Squeeze Upper Penn perforations per service company recommendation.
8. Pull out of retainer, reverse circulate and POOH w/ 2 7/8" tubing.
9. Wait 24 hours.
10. P.U bit, drill collars and 2 7/8" tubing.
11. Drill out retainer and cement to 7520'.
12. Pressure test casing to 1000 psi.
13. Drill out retainer @ 7520' and cement to 7568'.
14. Pressure test casing to 1000 psi.
15. Drill out retainer @ 7568' and cement to 7665'.
16. Pressure test casing to 1000 psi.
17. Drill out retainer @ 7665' and cement to 7750'.
18. Pressure test casing to 1000 psi.
19. Circulate hole clean to ± 9300'.
20. POOH w/ drill collars, bit and 2 7/8" workstring laying down.
21. RIH w/ Vann Gun System on 2 3/8" tubing.
22. Hydro-test tubing in the hole.
23. Run GR correlation log. Set packer. N/D BOP's, install wellhead.
24. Drop bar and fire perforating guns. Perf Morrow f/ 9200-14' w/ 4 JSPF.
25. Test well to test unit.



WELL DATA SHEET

FIELD Indian Basin

LEASE AND WELL NO. Indian Hills Unit Well No. 1

LOCATION 660' FSL. 660' FWL, Sec. 21, T21S, R24E

COUNTY AND STATE Eddy County, New Mexico

STATUS SI

TD 10,212' PBD 10,140' GL 3670' SB 3681'

SURFACE CASING 13-3/8" @ 304' w/960 sx.

TOC Surface

INTERMEDIATE CASING 9-5/8" @ 3098' w/1263 sx.

PRODUCTION CASING 7" 23#, 26#, 29# @ 10,159' w/700

TOC 6400' (T Survey).

LOGS

DST 6457-6527, 6634-6715, 7132-60, 7301-20, 8336-76

8561-76, 8550-8613, 9162-9225, 9230-9371, 9725-9455,

10,160-10,212

TUBING 2-3/8" w/Guiberson SVL 30 okr. @ 7369'

w/12,000#.

PRESENT COMPLETION: (Formation and Interval)

HISTORY 6/63 Drilled to 10,212' TD. Cmt retainer @ 10,140'. Sqzd w/50 sx. Perf 7690-7740' w/4 SPF (200 holes). MA/1000 gal. Swbd wtr. Sqzd perfs 7690-7740 w/90 sx. Perf 7590-7610 w/80 shots. MA/1000 gal. F 65 BWPH & 2000 MCF/GPD. Sqzd perfs 7690-7740 w/84 sx. Perf 7536-48 w/48 shots. MA/1000 gal. F 84 BWPH & 3250 MCF/GPD. Sqzd perfs 7536-48 w/84 sx. Perf 7410-20. MA/1000 gal. F 18,000 MCF/GPD w/no wtr. cmt retainer @ 7395' w/84 sx on top. Perf 7316-32 w/64 shots. MA/1000 gal. F 14,000 MCF/GPD. MA/2000 gal. CA 21,500 MCF. 1974 Watered out. SI. 9/78 Sqzd perfs 7316-32. DO retainer @ 7395'. Test perfs 7410-20. 40 hr. SITP = 0#. S.I.

**WRS COMPLETION REPORT**

COMPLETIONS SEC 21 TWP 21S RGE 24E  
PI# 30-T-0004 05/08/89 30-015-10066-0001 PAGE 1

NMEX EDDY \* 660FSL 660FWL SEC SW SW  
STATE COUNTY FOOTAGE SPOT

MARATHON OIL D X DG  
OPERATOR WELL CLASS INIT FIN

1 INDIAN HILLS UNIT  
WELL NO LEASE NAME

3681KB 3670GR INDIAN BASIN  
OPER ELEV FIELD POOL AREA

API 30-015-10066-0001  
LEASE TYPE NO PERMIT OR WELL I.D. NO.

06/17/1987 07/01/1988 WO-UNIT GAS-WO  
SPUD DATE COMP DATE TYPE TOOL STATUS

9300 MORROW X-PERT WELL SRVC

PROJ DEPTH PROJ FORM CONTRACTOR  
DTD 10212 PB 9300 OTD 10212 FM/TD DEVONIAN

DRILLERS T.D. LOG T.D. PLUG BACK TD OLD T.D. FORM T.D.  
LOCATION DESCRIPTION

15 MI SW LOCO HILLS, NM

TUBING DATA

TBG 2 3/8 AT 9200

INITIAL POTENTIAL

IPF 3103 MCFD 24HRS  
MORROW PERF W/ 56/IT 9200- 9214  
PERF 9200- 9214

SITP 2490  
@ 9200FT BHT 166F  
798MCFD TP 2350 BHFP 2366  
1068MCFD TP 2220 BHFP 2240  
1468MCFD TP 2015 BHFP 2042  
2000MCFD TP 1700 BHFP 1743

BH 2503 FPCAOF 3103MCFD GOR DRY

GAS GTY .598  
P/L CON TO AIR  
1ST THRU 4TH PT TEST IN 60 MINS, CKS-NO DETAILS  
NATURAL

PRODUCTION TEST DATA

CISCO PERF 7316- 7332  
PERF 7316- 7332  
SQZD W/ 225S 7316- 7332

CONTINUED IC# 300157008789

COMPLETIONS SEC 21 TWP 21S RGE 24E  
PI# 30-T-0004 05/08/89 30-015-10066-0001 PAGE 2

MARATHON OIL  
1

INDIAN HILLS UNIT

D X DG

PRODUCTION TEST DATA

SQZD & DOC TO 9300

DRILLING PROGRESS DETAILS

MARATHON OIL  
BOX 552  
MIDLAND, TX 79702  
915-682-1626

OWWO: OLD INFO: FORMERLY LOWE RALPH #1  
INDIAN HILLS UNIT. ELEV 3680 GR. SPUD  
2/25/63. 13 3/8 @ 304 W/950 SX. 9 5/8 @ 3098  
W/1163. 7 @ 10160 W/700 SX. LOG TOPS:  
MISSISSIPPIAN LM 9720, WOODFORD 10118. DRLR  
TOP: DEVONIAN 10162. OTD 10212. PB 7386.  
COMP 6/14/63. IPF 21500 MCFGPD. PROD ZONE:  
CISCO 7316-7332.

05/04  
05/04

LOC/1989/  
10212 TD, PB 9300  
COMP 7/1/88, IPCAOF 3103 MCFGPD, GOR DRY,  
GTY (GAS) .598, SIWHP 2490,  
SIBHP 2503  
PROD ZONE - MORROW 9200-9214  
FIRST REPORT & COMPLETION

**WRS COMPLETION REPORT**

COMPLETIONS SEC 21 TWP 21S RGE 24E  
30-T-0006 09/25/98 30-015-10066-0102 PAGE 1

NMEX EDDY \* 660FSL 660FWL SEC SW SW  
STATE COUNTY FOOTAGE SPOT  
MARATHON OIL D R DG  
OPERATOR WELL CLASS INIT FIN  
1 INDIAN HILLS UNIT  
WELL NO. LEASE NAME  
3670GR INDIAN BASIN  
OPER ELEV FIELD/POOL/AREA  
API 30-015-10066-0102  
LEASE NO. PERMIT OR WELL I.D. NO.  
04/22/1998 07/20/1998 ROTARY DIR GAS-WO  
SPUD DATE COMP. DATE TYPE TOOL HOLE TYPE STATUS  
8200 PNSLVN U MCVAY DRLG 4  
PROJ. DEPTH PROJ. FORM CONTRACTOR  
DTD 7926 PB 7833 OTD 10212 FM/TD PNNNSVLN  
DRILLERS T.D. LOG T.D. PLUG BACK TO OLD T.D. FORM T.D.

LOCATION DESCRIPTION

15 MI SW LOCO HILLS, NM

ACTUAL BOTTOM HOLE LOCATION

7926MD  
FTG 416 FSL 176 FWL SEC  
NO DIRECTIONAL SURVEY AVAILABLE

WHIPSTOCK DEPTH

WSD 6125

REMEDIAL SIDETRACK HOLE DATA

ORIGINAL HOLE TD 10212

CASING/LINER DATA

CSG 7 @ 7865 W/ 900 SACKS

TUBING DATA

TBG 2 7/8 AT 7615

INITIAL POTENTIAL

IPP 36BOPD 845 MCFD4665BW 24HRS  
CISCO PERF W/ 864/IT 7300- 7430 GROSS  
PERF 7300- 7312 7326- 7362 7368- 7430

CONTINUED IC# 300157000798



COMPLETIONS SEC 21 TWP 21S RGE 24E  
30-T-0006 09/25/98 30-015-10066-0102 PAGE 2

MARATHON OIL INDIAN HILLS UNIT D R DG  
1

INITIAL POTENTIAL

ACID 7300- 7430 10800GALS  
15% NEFE  
TREATING CO: FRACMASTER  
GTY 48.2 GOR 23472  
FIELD /RESERVOIR  
/PENNSYLVANIAN U  
GAS GTY (NR)

LOGS AND SURVEYS /INTERVAL,TYPE/

LOGS	DLL	MSFL	LSS
LOGS	GR	CAL	LDT
LOGS	CNL	5800- 7824 CBL	5800- 7824 CCL

DRILLING PROGRESS DETAILS

MARATHON OIL  
BOX 552  
MIDLAND, TX 79702  
915-682-1626  
OWST: OLD INFO: FORMERLY MARATHON OIL 1 INDIAN  
HILLS UNIT. ELEV 3670 GR, 3681 KB. SPUD 6/17/87.  
13 3/8 @ 304 W/950 SX, 9 5/8 @ 3098 W/1163 SX,  
7 @ 10160 W/700 SX. OTD 10212. PB 9300. COMP  
7/1/88. IPCAOF 3103 MCFGPD. PROD ZONE: MORROW  
9200-9214. (PLUGGED PRODUCER 8/22/92.)  
01/12 LOC/1998/  
04/20 10212 TD, MIRT  
04/28 10212 TD, DO @ 5958  
05/10 DO TO 6125 & KO IN STH  
05/11 10212 TD, DRLG BY @ 6215  
05/18 10212 TD, STTD 7926, LDDP  
05/18 DRLD TO 7926 IN STH  
05/26 10212 TD, STTD 7926, SI  
05/26 RAN 7 CSG  
RIG REL 05/20/98  
09/18 10212 TD, STTD 7926, STPB 7833  
COMP 7/20/98, IPP 36 BOPD, 845 MCFGPD,  
4665 BWPD, GTY 48.2, GAS  
GTY (NR), GOR 23472  
PROD ZONE - PENNSYLVANIAN U 7300-7430  
(GROSS)

CONTINUED

COMPLETIONS                    SEC    21 TWP    21S RGE    24E  
30-T-0006 09/25/98    30-015-10066-0102                    PAGE 3

MARATHON OIL  
1

INDIAN HILLS UNIT

D R DG

DRILLING PROGRESS DETAILS

NO CORES OR DSTS RPTD

***New Mexico Oil Conservation Division---Engineering Bureau  
Administrative Application Process Documentation***

**Date Application Received:** 8-21-2001

**Date of Preliminary Review:** 8-22-2001  
(Note: Must be within 10-days of received date)

**Results:**        Application Complete   ✓   Application Incomplete

**Date Incomplete Letter Sent:** 8-22-2001

**Deadline to Submit Requested Information:** 8-29-2001

**Phone Call Date:** \_\_\_\_\_  
(Note: Only applies if requested data is not submitted within the 7-day deadline)

**Phone Log Completed?**        Yes        No

**Date Application Processed:** 10-3-01

**Date Application Returned:** \_\_\_\_\_  
(Note: Only as a last resort & only after repeated attempts by the Division to obtain the necessary information to process the application)

*Info. submitted on 8-27-2001*

*2<sup>nd</sup> incomplete letter sent on 8-30-2001*

*- response w/ attachment ("checklist")  
received 9-6*

123433433

NSL

9/10/01

Southern U.S. Business Unit  
Domestic Production



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

August 15, 2001

NSL

New Mexico Oil Conservation Division  
Attn: Mr. Michael E. Stogner  
1220 South Saint Francis Drive  
Santa Fe, New Mexico 87505

Re: Indian Hills Unit No. 1 (API No. 30-015-10066) Location within Section 21,  
Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico

Mr. Stogner:

Per our phone conversation of August 10, 2001, attached you will find a copy of the letter I have sent to offset interest owners and a copy of the gyro survey that was done on the above referenced well. The gyro survey was done eleven months after the blind kick and recompletion of this well. As we discussed, I am sending a copy of the survey to both the New Mexico Oil Conservation Division office in Artesia and the Bureau of Land Management office in Roswell.

01 AUG 21 PM 12:54  
OIL CONSERVATION DIV.

We also discussed the participation in the Indian Hills Unit Agreement that day. I checked with our land department and they explained to me that Sections 20, 21, 28 and 33 all have identical ownership and are covered by the Unit agreement, Marathon with 99.54544% and Nearburg Exploration with 0.45456%. Section 29, however, is covered by Gas Com agreement CA-SW-272 with interest owners as follows:

Marathon Oil Company	93.32385%	Claremont Corp.	1.40937%
Texas Independent Exploration	1.28125%	Devon Energy	1.15313%
Nolan Brunson, Jr.	0.56250%	Tandem Energy	1.28125%
Nearburg Exploration	0.42615%	Hugh Hanagan	0.28125%
Hanagan Properties	0.28125%		

I hope this answers all your questions and concerns. If not, please call me at (915) 687-8321. Thank you for your time and for your consideration in this matter.

Sincerely,

Ginny Larke  
Engineer Technician

Attachments

cc: Tom Kellahin



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

August 14, 2001

All Interest Owners of the Indian Hills Unit and Indian Hills Unit Gas Com Leases  
Certified Mail (Return Receipt Requested)

Re: Indian Hills Unit Well No. 1 Unorthodox Location

Dear Sir or Madam:

The Indian Hills Unit Well No. 1, API No. 30-015-10066, was drilled and completed in June, 1963. The location was originally surveyed November 21, 1962, by Joe Hewitt, Jr., at 660' FSL and 660' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico, please see attached copy of Form C-128. The well was plugged and the location abandoned in August, 1992. A decision was made to re-enter this well so the location was re-surveyed by Mr. Ronald J. Eidson, of John West Engineering, on November 4, 1997, see attached copy of Form C-102. According to information obtained from Mr. Eidson, the original survey of this area was done in 1882. The Federal Government ordered a re-survey of this area which was conducted from November 16, 1966 to January 12, 1967. Mr. Eidson said it took the surveyors two months to re-survey Section 21 and, in the process, the corners of this section were moved. Due to this re-survey, the legal description for this surface location is now 416' FSL and 176' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico.

When the well was re-entered in early 1998, Marathon did a blind kick to drill around some junk that was left in the hole when it was plugged in 1992. No directional survey was done at the time of the re-entry, however, in March, 1999, a survey was done by Scientific Drilling International. This survey shows that, after the blind kick was done, the bottom hole location of this well is now 427' FSL and 30' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico.

No application for an unorthodox location was ever filed after the re-survey or prior to the re-entry of this well. This letter is to inform you, as an offset interest owner, that Marathon has filed an application for this unorthodox location with the Oil Conservation Division in Santa Fe, New Mexico. If you have an objection to Marathon's application, you have 20 days from the date of this letter to file your objection with the Oil Conservation Division office in Santa Fe, New Mexico. If you have no objection, please sign one copy in the space provided and return to me in the enclosed envelope. If you have questions or need further information, please call me at 915-687-8321.

Sincerely,

A handwritten signature in cursive script that reads 'Ginny Larke'.

Ginny Larke  
Engineer Technician

Attachments

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Date: \_\_\_\_\_

Claremont Corporation  
P. O. Box 549  
Claremore, OK 74018-0549

Texas Independent Exploration, Inc.  
1600 Smith, Suite 3800  
Houston, TX 77002-3800

Devon Energy  
20 N. Broadway, Suite 1500  
Oklahoma City, OK 73102

Nolan Brunson, Jr.  
P. O. Box 2390  
Hobbs, NM 88241-2390

Nearburg Exploration  
3300 N. A Street, Suite 120  
Building 2  
Midland, TX 79705

Tandem Energy Corporation  
P. O. Box 351  
Midland, TX 79702-0351

Hugh Hanagan  
P. O. Box 329  
Roswell, NM 88210-0329

Hanagan Properties  
Attn: Robert G. Hanagan  
P. O. Box 1887  
Santa Fe, NM 87504-1887

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TRANSPORTER	OIL GAS
PRODUCTION OFFICE	
OPERATOR	

**NEW MEXICO OIL CONSERVATION COMMISSION**  
**WELL LOCATION AND ACREAGE DEDICATION PLAT**  
 SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

FORM 16-571  
 Revised 5/1/57

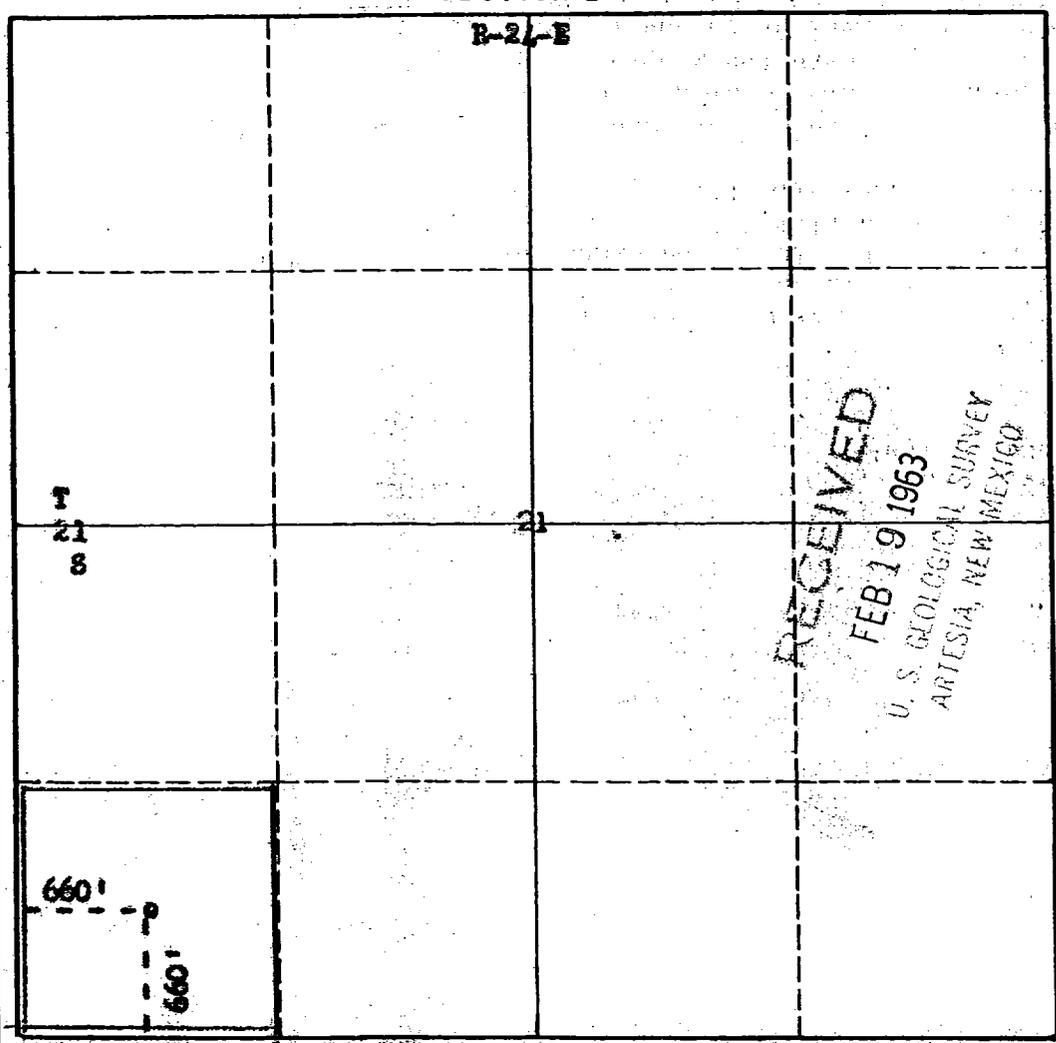
**SECTION A**

Operator <b>Ralph Lowe</b>		Lease <b>Indian Hills Unit</b>		Well No. <b>1</b>	
Unit Letter <b>M</b>	Section <b>21</b>	Township <b>T-21-S</b>	Range <b>R-21-E</b>	County <b>Sddy</b>	
Actual Footage Location of Well: <b>660</b> feet from the <b>South</b> line and <b>660</b> feet from the <b>West</b> line					
Ground Level Elev. <b>3704</b>	Producing Formation <b>Wildcat</b>		Pool <b>Wildcat</b>		Dedicated Acreage: <b>40</b> Acres

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES  NO  ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1935 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES  NO  . If answer is "yes," Type of Consolidation \_\_\_\_\_
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

**SECTION B**



**CERTIFICATION**

I hereby certify that the information in SECTION A above is true and complete to the best of my knowledge and belief.

*C. H. Murray*  
 Name **C. H. Murray**

Position **Agent**

Company **RALPH LOWE**

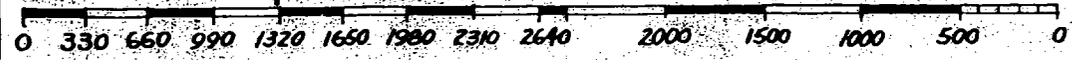
Date **February 16, 1963**

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

RECEIVED  
 FEB 19 1963  
 U. S. GEOLOGICAL SURVEY  
 ARTESIA, NEW MEXICO

Date Surveyed **November 21, 1962**

Registered Professional Engineer and/or Land Surveyor  
*Joe J. Heibelt*  
 Certificate No. **3280**



DISTRICT I  
 P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-102  
 Revised February 10, 1994  
 Submit to Appropriate District Office  
 State Lease - 4 Copies  
 Fee Lease - 3 Copies

DISTRICT II  
 P.O. Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION

DISTRICT III  
 1000 Rio Brazos Rd., Aztec, NM 87410

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT IV  
 P.O. BOX 2088, SANTA FE, N.M. 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name INDIAN HILLS UNIT	Well Number 1
OGRID No.	Operator Name MARATHON OIL COMPANY	Elevation 3670

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	21	21 S	24 E		416	SOUTH	176	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
 OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Title _____</p> <p>Date _____</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>NOVEMBER 4, 1997</p> <p>Date Surveyed _____ DMCC</p> <p>Signature &amp; Seal of Professional Surveyor _____</p> <p><i>Ronald J. Eidson</i> 11-07-97</p> <p>97-11-1748</p>
	<p>Certificate No. JOHN W. WEST 676          RONALD J. EIDSON 3239          GARY EIDSON 12641</p>



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

June 21, 2001

Oil Conservation Division  
Attn: Mr. Michael E. Stogner  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Indian Hills Unit Well No. 1 Unorthodox Location

Mr. Stogner:

This letter is being sent per our phone conversation of June 13, 2001. As we discussed, the Indian Hills Unit Well No. 1, API No. 30-015-10066, was drilled and completed in June, 1963. The location was originally surveyed November 21, 1962, by Joe Hewitt, Jr., at 660' FSL and 660' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico, please see attached copy of Form C-128. The well was plugged and the location abandoned in August, 1992. A decision was made to re-enter this well so the location was re-surveyed by Mr. Ronald J. Eidson, of John West Engineering, on November 4, 1997, see attached copy of Form C-102. According to information obtained from Mr. Eidson, the original survey of this area was done in 1882. The Federal Government ordered a re-survey of this area which was conducted from November 16, 1966 to January 12, 1967. Mr. Eidson said it took the surveyors two months to re-survey Section 21 and, in the process, the corners of this section were moved. Due to this re-survey, the legal description for this location is now 416' FSL and 176' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico.

No application for an unorthodox location was ever filed after the re-survey or prior to the recompletion of this well. Please determine if such an application is required considering the circumstances. Thank you for your help in this matter and for taking the time to answer my questions last week when we spoke on the phone.

Sincerely,

A handwritten signature in cursive script that reads 'Ginny Larke'.

Ginny Larke  
Engineer Technician

Attachments

WELL FILE

SCIENTIFIC DRILLING INTERNATIONAL  
MIDLAND, TEXAS

MARATHON OIL COMPANY

Well Name : INDIAN HILLS  #1  
Location : EDDY COUNTY, NM  
SHL :  
BHL :  
ACTUAL BHL :  
Date Surveyed : 18 MARCH 1999  
Job No. : 32K0399064  
Surveyor : GARY DESPAIN

*Unit*

Sent to Central Files  
Date: *4-16-99*

This survey is correct to the best of my knowledge  
and is supported by actual field data.

*Gary Despain*..... COMPANY REPRESENTATIVE

SCIENTIFIC DRILLING INTERNATIONAL

Customer : MARATHON OIL COMPANY Unit  
 Well Name : INDIAN HILLS ~~XXXXXXXXXX~~ #1  
 Location : EDDY COUNTY, NM

Page 1 of 8  
 Date 18 MARCH 1999  
 Filename : INDIAN#1

BHL :  
 BHL :  
 ACTUAL BHL :

No Interpolation

Height Of WELLSITE Datum Above Field Datum 0.00 ft

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
0.0	0.00	N 0.00°E	0.00	0.00	0.00	0.00	0.0
100.0	0.41	N15.00°W	100.00	0.35	-0.09	0.12	0.4
125.0	0.41	N16.39°W	125.00	0.52	-0.14	0.18	0.0
150.0	0.47	N15.83°W	150.00	0.70	-0.19	0.25	0.2
175.0	0.51	N11.68°W	175.00	0.91	-0.24	0.31	0.2
200.0	0.62	N 5.67°W	200.00	1.15	-0.28	0.37	0.5
225.0	0.59	N 3.56°W	224.99	1.42	-0.30	0.41	0.2
250.0	0.69	N 1.78°E	249.99	1.70	-0.31	0.43	0.5
275.0	0.70	N 2.61°E	274.99	2.00	-0.29	0.44	0.1
300.0	0.65	N 2.38°E	299.99	2.29	-0.28	0.45	0.2
325.0	0.69	N 0.78°E	324.99	2.58	-0.27	0.46	0.2
350.0	0.72	N 0.94°E	349.99	2.89	-0.27	0.48	0.1
375.0	0.72	N11.83°W	374.98	3.20	-0.30	0.53	0.6
400.0	0.87	N10.90°W	399.98	3.54	-0.37	0.63	0.6
425.0	0.85	N 8.36°W	424.98	3.91	-0.43	0.72	0.2
450.0	0.86	N 7.87°W	449.98	4.28	-0.48	0.80	0.0
475.0	0.79	N 8.55°W	474.97	4.64	-0.53	0.87	0.3
500.0	0.84	N 8.67°W	499.97	4.99	-0.59	0.95	0.2
525.0	0.76	N11.55°W	524.97	5.33	-0.65	1.04	0.4
550.0	0.82	N12.32°W	549.97	5.67	-0.72	1.14	0.2
575.0	0.86	N14.87°W	574.96	6.03	-0.80	1.25	0.2
600.0	0.75	N19.85°W	599.96	6.36	-0.91	1.38	0.5
625.0	0.77	N22.71°W	624.96	6.67	-1.03	1.52	0.2
650.0	0.74	N22.85°W	649.96	6.98	-1.16	1.67	0.1
675.0	0.72	N24.53°W	674.95	7.27	-1.28	1.82	0.1
700.0	0.67	N32.41°W	699.95	7.53	-1.43	1.98	0.4
725.0	0.74	N31.27°W	724.95	7.79	-1.59	2.16	0.3
750.0	0.70	N31.93°W	749.95	8.06	-1.75	2.35	0.2
775.0	0.56	N42.54°W	774.95	8.28	-1.92	2.52	0.7
800.0	0.50	N47.58°W	799.95	8.45	-2.08	2.70	0.3
825.0	0.54	N49.55°W	824.94	8.60	-2.25	2.88	0.2
850.0	0.52	N45.20°W	849.94	8.75	-2.42	3.06	0.2
875.0	0.44	N52.05°W	874.94	8.89	-2.58	3.23	0.4
900.0	0.51	N45.97°W	899.94	9.03	-2.73	3.39	0.3
925.0	0.51	N47.40°W	924.94	9.18	-2.89	3.57	0.0
950.0	0.45	N77.66°W	949.94	9.28	-3.07	3.75	1.0
975.0	0.47	N65.73°W	974.94	9.34	-3.26	3.94	0.4
1000.0	0.47	N71.18°W	999.94	9.41	-3.45	4.14	0.2
1025.0	0.48	N72.31°W	1024.94	9.48	-3.65	4.34	0.0
1050.0	0.53	N78.30°W	1049.94	9.53	-3.86	4.56	0.3

SCIENTIFIC DRILLING INTERNATIONAL

Owner : MARATHON OIL COMPANY Unit  
 Name : INDIAN HILLS ~~XXXXXXXXXX~~ #1  
 Location : EDDY COUNTY, NM

Page 2 of 8  
 Date 18 MARCH 1999  
 Filename : INDIAN#1

JAL BHL :

Height Of WELLSITE Datum Above Field Datum 0.00 ft

No Interpolation

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
1075.0	0.55	N79.41°W	1074.94	9.58	-4.09	4.79	0.1
1100.0	0.48	S86.83°W	1099.94	9.60	-4.32	5.01	0.6
1125.0	0.54	N73.27°W	1124.93	9.62	-4.53	5.23	0.7
1150.0	0.52	N78.99°W	1149.93	9.68	-4.76	5.46	0.2
1175.0	0.55	N74.44°W	1174.93	9.73	-4.98	5.69	0.2
1200.0	0.54	S88.64°W	1199.93	9.76	-5.22	5.93	0.6
1225.0	0.56	N78.47°W	1224.93	9.78	-5.46	6.16	0.5
1250.0	0.53	N82.28°W	1249.93	9.82	-5.69	6.40	0.2
1275.0	0.54	N70.96°W	1274.93	9.88	-5.92	6.63	0.4
1300.0	0.55	N89.55°W	1299.93	9.92	-6.15	6.86	0.7
1325.0	0.59	N83.77°W	1324.93	9.93	-6.39	7.11	0.3
1350.0	0.60	S83.00°W	1349.92	9.93	-6.65	7.37	0.5
1375.0	0.61	N88.57°W	1374.92	9.92	-6.92	7.63	0.4
1400.0	0.67	N85.59°W	1399.92	9.93	-7.19	7.91	0.3
1425.0	0.68	N82.62°W	1424.92	9.96	-7.49	8.20	0.1
1450.0	0.68	N78.36°W	1449.92	10.01	-7.78	8.50	0.2
1475.0	0.67	N74.56°W	1474.92	10.08	-8.07	8.79	0.2
1500.0	0.70	N71.84°W	1499.91	10.17	-8.35	9.08	0.2
1525.0	0.62	N71.02°W	1524.91	10.26	-8.63	9.36	0.3
1550.0	0.58	N83.84°W	1549.91	10.32	-8.88	9.62	0.6
1575.0	0.56	N72.29°W	1574.91	10.37	-9.12	9.86	0.5
1600.0	0.56	N69.72°W	1599.91	10.45	-9.35	10.10	0.1
1625.0	0.53	N76.85°W	1624.91	10.52	-9.58	10.33	0.3
1650.0	0.48	N72.72°W	1649.91	10.57	-9.79	10.55	0.3
1675.0	0.51	N87.41°W	1674.91	10.61	-10.00	10.76	0.5
1700.0	0.56	N73.44°W	1699.90	10.65	-10.23	10.99	0.6
1725.0	0.50	N88.11°W	1724.90	10.69	-10.46	11.22	0.6
1750.0	0.51	S83.43°W	1749.90	10.68	-10.68	11.44	0.3
1775.0	0.50	N87.46°W	1774.90	10.67	-10.90	11.66	0.3
1800.0	0.51	S78.84°W	1799.90	10.65	-11.11	11.87	0.5
1825.0	0.53	N82.91°W	1824.90	10.65	-11.34	12.09	0.7
1850.0	0.51	S87.35°W	1849.90	10.66	-11.56	12.32	0.4
1875.0	0.48	N84.74°W	1874.90	10.66	-11.78	12.54	0.3
1900.0	0.47	S81.72°W	1899.90	10.65	-11.99	12.74	0.4
1925.0	0.33	N85.69°W	1924.90	10.65	-12.16	12.91	0.7
1950.0	0.31	N85.43°W	1949.90	10.66	-12.30	13.05	0.1
1975.0	0.26	S88.56°W	1974.90	10.66	-12.42	13.18	0.2
2000.0	0.30	S82.45°W	1999.89	10.65	-12.54	13.30	0.2
2025.0	0.26	S76.43°W	2024.89	10.63	-12.66	13.41	0.2
2050.0	0.24	S82.55°W	2049.89	10.61	-12.77	13.52	0.1

SCIENTIFIC DRILLING INTERNATIONAL

Operator : MARATHON OIL COMPANY Unit  
 Well Name : INDIAN HILLS ~~WELL~~ #1  
 Location : EDDY COUNTY, NM

Page 3 of 8  
 Date 18 MARCH 1999  
 Filename : INDIAN#1

WELL BHL :  
 Height Of WELLSITE Datum Above Field Datum 0.00 ft No Interpolation

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
2075.0	0.21	S79.40°W	2074.89	10.59	-12.87	13.62	0.1
2100.0	0.11	N82.63°W	2099.89	10.59	-12.94	13.68	0.4
2125.0	0.20	S49.95°W	2124.89	10.56	-12.99	13.74	0.6
2150.0	0.14	N66.77°W	2149.89	10.55	-13.06	13.80	0.7
2175.0	0.12	S83.87°W	2174.89	10.56	-13.11	13.85	0.3
2200.0	0.18	S40.88°W	2199.89	10.52	-13.16	13.90	0.5
2225.0	0.07	N81.30°W	2224.89	10.50	-13.20	13.94	0.6
2250.0	0.09	S57.00°W	2249.89	10.49	-13.23	13.97	0.2
2275.0	0.10	S64.01°W	2274.89	10.47	-13.27	14.01	0.1
2300.0	0.15	S54.47°W	2299.89	10.44	-13.32	14.05	0.2
2325.0	0.11	S54.04°W	2324.89	10.41	-13.36	14.09	0.2
2350.0	0.05	S79.45°W	2349.89	10.39	-13.39	14.12	0.3
2375.0	0.08	S81.06°W	2374.89	10.38	-13.42	14.15	0.1
2400.0	0.10	S88.22°W	2399.89	10.38	-13.46	14.19	0.1
2425.0	0.13	S82.32°W	2424.89	10.38	-13.51	14.24	0.1
2450.0	0.11	S77.42°W	2449.89	10.37	-13.56	14.29	0.1
2475.0	0.03	S57.77°W	2474.89	10.36	-13.59	14.32	0.3
2500.0	0.07	S84.26°W	2499.89	10.35	-13.61	14.34	0.2
2525.0	0.10	S85.41°W	2524.89	10.35	-13.65	14.37	0.1
2550.0	0.08	N73.68°W	2549.89	10.35	-13.69	14.41	0.2
2575.0	0.08	N60.98°W	2574.89	10.37	-13.72	14.45	0.1
2600.0	0.05	S78.89°W	2599.89	10.37	-13.74	14.47	0.2
2625.0	0.10	N48.58°W	2624.89	10.39	-13.77	14.50	0.3
2650.0	0.15	N26.81°W	2649.89	10.43	-13.80	14.53	0.3
2675.0	0.12	N45.24°W	2674.89	10.48	-13.83	14.57	0.2
2700.0	0.15	N31.44°W	2699.89	10.52	-13.87	14.61	0.2
2725.0	0.11	N52.00°W	2724.89	10.57	-13.91	14.65	0.2
2750.0	0.22	N15.39°W	2749.89	10.63	-13.94	14.69	0.6
2775.0	0.21	N 2.14°W	2774.89	10.72	-13.95	14.71	0.2
2800.0	0.23	N10.25°E	2799.89	10.81	-13.95	14.71	0.2
2825.0	0.21	N12.27°E	2824.89	10.91	-13.93	14.69	0.1
2850.0	0.18	N18.32°E	2849.89	10.99	-13.90	14.68	0.1
2875.0	0.17	N 5.56°E	2874.89	11.07	-13.89	14.67	0.2
2900.0	0.21	N 4.27°E	2899.89	11.15	-13.88	14.67	0.2
2925.0	0.17	N12.26°E	2924.89	11.23	-13.87	14.66	0.2
2950.0	0.19	N10.85°E	2949.89	11.31	-13.85	14.65	0.1
2975.0	0.17	N 3.82°W	2974.89	11.38	-13.85	14.65	0.2
3000.0	0.08	N40.78°W	2999.89	11.43	-13.86	14.67	0.5
3025.0	0.21	N19.64°W	3024.89	11.49	-13.89	14.70	0.6
3050.0	0.19	N13.54°W	3049.89	11.57	-13.92	14.73	0.1

SCIENTIFIC DRILLING INTERNATIONAL

Owner : MARATHON OIL COMPANY Unit  
 Name : INDIAN HILLS - ~~XXXXXXXXXX~~ #1  
 Location : EDDY COUNTY, NM

Page 4 of 8  
 Date 18 MARCH 1999  
 Filename : INDIAN#1

JAL BHL :  
 Height Of WELLSITE Datum Above Field Datum 0.00 ft No Interpolation

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
3075.0	0.20	N 9.56°W	3074.89	11.66	-13.93	14.76	0.1
3100.0	0.16	N 7.23°W	3099.89	11.74	-13.94	14.77	0.2
3125.0	0.18	N 5.43°W	3124.89	11.81	-13.95	14.79	0.1
3150.0	0.20	N28.33°W	3149.89	11.89	-13.98	14.82	0.3
3175.0	0.21	N30.38°W	3174.89	11.96	-14.02	14.87	0.0
3200.0	0.24	N26.78°W	3199.89	12.05	-14.07	14.92	0.1
3225.0	0.33	N11.75°W	3224.89	12.17	-14.11	14.97	0.5
3250.0	0.33	N 0.67°W	3249.89	12.31	-14.12	14.99	0.3
3275.0	0.28	N 1.68°E	3274.89	12.44	-14.12	15.00	0.2
3300.0	0.29	N14.96°E	3299.89	12.57	-14.10	14.99	0.3
3325.0	0.25	N 8.36°E	3324.89	12.68	-14.08	14.98	0.2
3350.0	0.25	N12.22°E	3349.89	12.79	-14.06	14.96	0.1
3375.0	0.25	N12.86°E	3374.89	12.89	-14.03	14.95	0.0
3400.0	0.32	N 1.75°E	3399.89	13.02	-14.02	14.94	0.4
3425.0	0.28	N 0.71°E	3424.89	13.15	-14.02	14.95	0.2
3450.0	0.26	N 6.37°E	3449.89	13.27	-14.01	14.95	0.1
3475.0	0.34	N 3.93°E	3474.89	13.40	-14.00	14.95	0.3
3500.0	0.36	N 1.12°W	3499.89	13.55	-14.00	14.96	0.1
3525.0	0.35	N 0.05°E	3524.89	13.70	-14.00	14.97	0.0
3550.0	0.38	N 0.21°W	3549.89	13.86	-14.00	14.98	0.1
3575.0	0.34	N 3.71°E	3574.89	14.02	-13.99	14.99	0.2
3600.0	0.39	N10.42°W	3599.89	14.18	-14.00	15.01	0.4
3625.0	0.30	N 5.49°W	3624.89	14.33	-14.02	15.04	0.4
3650.0	0.34	N21.02°W	3649.88	14.46	-14.06	15.09	0.4
3675.0	0.41	N23.00°W	3674.88	14.61	-14.12	15.16	0.3
3700.0	0.43	N29.62°W	3699.88	14.78	-14.20	15.25	0.2
3725.0	0.54	N34.33°W	3724.88	14.96	-14.31	15.38	0.5
3750.0	0.57	N32.14°W	3749.88	15.16	-14.45	15.53	0.1
3775.0	0.56	N35.57°W	3774.88	15.36	-14.58	15.68	0.1
3800.0	0.64	N29.02°W	3799.88	15.58	-14.72	15.83	0.4
3825.0	0.56	N37.69°W	3824.88	15.80	-14.86	15.99	0.5
3850.0	0.56	N41.86°W	3849.88	15.99	-15.02	16.16	0.2
3875.0	0.54	N43.79°W	3874.87	16.17	-15.18	16.34	0.1
3900.0	0.60	N37.37°W	3899.87	16.36	-15.34	16.51	0.4
3925.0	0.61	N46.61°W	3924.87	16.55	-15.52	16.70	0.4
3950.0	0.64	N52.81°W	3949.87	16.73	-15.73	16.92	0.3
3975.0	0.71	N60.92°W	3974.87	16.89	-15.98	17.18	0.5
4000.0	0.82	N60.80°W	3999.87	17.05	-16.27	17.48	0.4
4025.0	0.91	N70.61°W	4024.86	17.20	-16.61	17.84	0.7
4050.0	1.03	N66.51°W	4049.86	17.36	-17.00	18.24	0.6

SCIENTIFIC DRILLING INTERNATIONAL

Customer : MARATHON OIL COMPANY Unit  
 Well Name : INDIAN HILLS #1  
 Location : EDDY COUNTY, NM

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 Date 18 MARCH 1999  
 Filename : INDIAN#1

WELL BHL : No Interpolation  
 Height Of WELLSITE Datum Above Field Datum 0.00 ft

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
4075.0	1.11	N70.66°W	4074.85	17.53	-17.44	18.69	0.4
4100.0	1.33	N71.62°W	4099.85	17.70	-17.94	19.20	0.9
4125.0	1.47	N70.95°W	4124.84	17.90	-18.52	19.79	0.6
4150.0	1.76	N72.70°W	4149.83	18.11	-19.19	20.48	1.2
4175.0	2.06	N71.11°W	4174.82	18.37	-19.98	21.28	1.2
4200.0	2.27	N70.27°W	4199.80	18.69	-20.87	22.20	0.8
4225.0	2.60	N68.16°W	4224.78	19.06	-21.87	23.21	1.4
4250.0	2.75	N68.60°W	4249.75	19.49	-22.95	24.33	0.6
4275.0	2.84	N65.07°W	4274.72	19.97	-24.07	25.48	0.8
4300.0	2.94	N66.52°W	4299.69	20.49	-25.22	26.66	0.5
4325.0	2.99	N66.03°W	4324.65	21.01	-26.40	27.88	0.2
4350.0	3.11	N65.08°W	4349.62	21.56	-27.61	29.13	0.5
4375.0	3.10	N65.23°W	4374.58	22.13	-28.84	30.40	0.0
4400.0	3.17	N66.41°W	4399.54	22.69	-30.09	31.68	0.4
4425.0	3.15	N65.65°W	4424.51	23.25	-31.35	32.98	0.2
4450.0	3.10	N65.58°W	4449.47	23.81	-32.59	34.26	0.2
4475.0	3.13	N65.47°W	4474.43	24.38	-33.83	35.54	0.1
4500.0	3.14	N65.03°W	4499.40	24.95	-35.07	36.82	0.1
4525.0	3.18	N65.16°W	4524.36	25.53	-36.32	38.11	0.2
4550.0	3.16	N65.38°W	4549.32	26.11	-37.57	39.40	0.1
4575.0	3.15	N65.00°W	4574.28	26.68	-38.82	40.69	0.1
4600.0	3.13	N64.75°W	4599.24	27.27	-40.06	41.97	0.1
4625.0	3.08	N63.35°W	4624.21	27.86	-41.28	43.23	0.4
4650.0	3.09	N62.53°W	4649.17	28.47	-42.48	44.47	0.2
4675.0	3.04	N61.25°W	4674.13	29.10	-43.66	45.69	0.3
4700.0	3.00	N60.82°W	4699.10	29.74	-44.81	46.89	0.2
4725.0	2.95	N60.74°W	4724.07	30.37	-45.94	48.06	0.2
4750.0	2.89	N60.58°W	4749.04	30.99	-47.05	49.21	0.2
4775.0	2.91	N60.72°W	4774.00	31.61	-48.16	50.36	0.1
4800.0	2.82	N60.22°W	4798.97	32.23	-49.24	51.49	0.4
4825.0	2.79	N60.52°W	4823.94	32.84	-50.31	52.60	0.1
4850.0	2.82	N61.00°W	4848.91	33.43	-51.37	53.70	0.2
4875.0	2.80	N60.75°W	4873.88	34.03	-52.44	54.82	0.1
4900.0	2.78	N61.69°W	4898.85	34.62	-53.51	55.92	0.2
4925.0	2.75	N61.71°W	4923.82	35.19	-54.57	57.02	0.1
4950.0	2.71	N62.70°W	4948.79	35.74	-55.63	58.12	0.3
4975.0	2.76	N63.80°W	4973.77	36.28	-56.69	59.22	0.3
5000.0	2.72	N64.70°W	4998.74	36.80	-57.77	60.33	0.2
5025.0	2.73	N65.08°W	5023.71	37.30	-58.84	61.44	0.1
5050.0	2.72	N65.75°W	5048.68	37.80	-59.92	62.55	0.1

SCIENTIFIC DRILLING INTERNATIONAL

Customer : MARATHON OIL COMPANY *Unit*  
 Well Name : INDIAN HILLS ~~XXXXXXXXXX~~ #1  
 Location : EDDY COUNTY, NM

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 Date 18 MARCH 1999  
 Filename : INDIAN#1

WELL BHL :

Height Of WELLSITE Datum Above Field Datum 0.00 ft

No Interpolation

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
5075.0	2.72	N66.83°W	5073.65	38.27	-61.01	63.67	0.2
5100.0	2.72	N68.50°W	5098.62	38.73	-62.11	64.80	0.3
5125.0	2.66	N69.52°W	5123.60	39.15	-63.20	65.92	0.3
5150.0	2.62	N70.91°W	5148.57	39.54	-64.29	67.03	0.3
5175.0	2.59	N72.60°W	5173.54	39.89	-65.37	68.13	0.3
5200.0	2.48	N74.32°W	5198.52	40.21	-66.43	69.22	0.5
5225.0	2.42	N77.48°W	5223.50	40.47	-67.46	70.27	0.6
5250.0	2.41	N77.48°W	5248.48	40.70	-68.49	71.31	0.0
5275.0	2.34	N81.76°W	5273.45	40.88	-69.51	72.34	0.8
5300.0	2.30	N85.30°W	5298.43	41.00	-70.51	73.35	0.6
5325.0	2.36	N89.25°W	5323.41	41.04	-71.53	74.37	0.7
5350.0	2.38	S87.18°W	5348.39	41.03	-72.56	75.39	0.6
5375.0	2.35	S86.51°W	5373.37	40.97	-73.59	76.42	0.2
5400.0	2.37	S83.22°W	5398.35	40.88	-74.62	77.43	0.5
5425.0	2.34	S81.71°W	5423.33	40.74	-75.63	78.44	0.3
5450.0	2.38	S77.98°W	5448.31	40.56	-76.65	79.43	0.6
5475.0	2.40	S75.86°W	5473.28	40.32	-77.66	80.43	0.4
5500.0	2.43	S74.40°W	5498.26	40.05	-78.68	81.43	0.3
5525.0	2.50	S70.33°W	5523.24	39.73	-79.70	82.42	0.8
5550.0	2.48	S70.25°W	5548.22	39.36	-80.73	83.41	0.1
5575.0	2.53	S69.35°W	5573.19	38.98	-81.75	84.41	0.3
5600.0	2.52	S68.67°W	5598.17	38.59	-82.78	85.41	0.1
5625.0	2.57	S67.25°W	5623.14	38.17	-83.81	86.40	0.3
5650.0	2.58	S64.77°W	5648.12	37.72	-84.84	87.39	0.4
5675.0	2.62	S64.65°W	5673.09	37.23	-85.86	88.38	0.2
5700.0	2.57	S63.87°W	5698.06	36.74	-86.88	89.36	0.3
5725.0	2.64	S63.13°W	5723.04	36.23	-87.90	90.33	0.3
5750.0	2.61	S61.08°W	5748.01	35.70	-88.91	91.30	0.4
5775.0	2.61	S58.58°W	5772.99	35.13	-89.89	92.24	0.5
5800.0	2.64	S55.57°W	5797.96	34.50	-90.85	93.15	0.6
5825.0	2.60	S55.14°W	5822.94	33.85	-91.79	94.04	0.2
5850.0	2.60	S51.34°W	5847.91	33.18	-92.70	94.90	0.7
5875.0	2.56	S49.47°W	5872.88	32.46	-93.57	95.71	0.4
5900.0	2.49	S43.07°W	5897.86	31.70	-94.36	96.45	1.2
5925.0	2.44	S39.43°W	5922.84	30.89	-95.07	97.10	0.7
5950.0	2.43	S36.09°W	5947.81	30.05	-95.72	97.68	0.6
5975.0	2.42	S31.89°W	5972.79	29.18	-96.31	98.21	0.7
6000.0	2.35	S29.90°W	5997.77	28.28	-96.85	98.67	0.4
6025.0	2.38	S29.03°W	6022.75	27.38	-97.36	99.11	0.2
6050.0	2.39	S29.44°W	6047.73	26.48	-97.86	99.55	0.1

SCIENTIFIC DRILLING INTERNATIONAL

Customer : MARATHON OIL COMPANY Unit  
 Well Name : INDIAN HILLS ~~XXXXXXXXXX~~ #1  
 Location : EDDY COUNTY, NM

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 Date 18 MARCH 1999  
 Filename : INDIAN#1

L :  
 L :

TUAL BHL : No Interpolation  
 Height Of WELLSITE Datum Above Field Datum 0.00 ft

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
6075.0	2.42	S29.03°W	6072.71	25.56	-98.38	100.00	0.1
6100.0	2.38	S29.84°W	6097.68	24.65	-98.89	100.44	0.2
6125.0	2.30	S35.65°W	6122.66	23.79	-99.44	100.93	1.0
6150.0	2.28	S46.71°W	6147.64	23.04	-100.10	101.52	1.8
6175.0	2.24	S57.41°W	6172.62	22.44	-100.87	102.25	1.7
6200.0	2.23	S68.43°W	6197.60	22.00	-101.73	103.08	1.7
6225.0	2.32	S75.51°W	6222.58	21.69	-102.68	104.00	1.2
6250.0	2.26	S82.99°W	6247.56	21.51	-103.65	104.96	1.2
6275.0	2.21	S86.83°W	6272.54	21.42	-104.63	105.92	0.6
6300.0	2.21	S86.56°W	6297.53	21.36	-105.59	106.88	0.0
6325.0	2.20	S87.65°W	6322.51	21.31	-106.55	107.83	0.2
6350.0	2.19	S87.50°W	6347.49	21.27	-107.50	108.78	0.0
6375.0	2.06	N87.44°W	6372.47	21.27	-108.43	109.71	0.9
6400.0	2.02	N84.99°W	6397.46	21.33	-109.32	110.60	0.4
6425.0	1.91	N80.27°W	6422.44	21.44	-110.17	111.45	0.8
6450.0	1.86	N72.82°W	6447.43	21.63	-110.97	112.26	1.0
6475.0	1.85	N71.29°W	6472.42	21.88	-111.74	113.05	0.2
6500.0	1.87	N71.47°W	6497.40	22.14	-112.51	113.83	0.1
6525.0	1.86	N71.23°W	6522.39	22.40	-113.28	114.62	0.0
6550.0	1.89	N72.20°W	6547.38	22.66	-114.05	115.42	0.2
6575.0	1.92	N72.66°W	6572.36	22.91	-114.85	116.22	0.1
6600.0	1.96	N73.88°W	6597.35	23.15	-115.66	117.05	0.2
6625.0	1.92	N77.21°W	6622.33	23.36	-116.47	117.88	0.5
6650.0	1.93	N81.60°W	6647.32	23.52	-117.30	118.72	0.6
6675.0	1.89	N82.88°W	6672.31	23.63	-118.13	119.55	0.2
6700.0	1.88	N86.50°W	6697.29	23.70	-118.94	120.37	0.5
6725.0	1.98	S87.82°W	6722.28	23.71	-119.78	121.21	0.9
6750.0	2.09	S86.25°W	6747.26	23.67	-120.67	122.09	0.5
6775.0	2.28	S79.66°W	6772.24	23.55	-121.61	123.02	1.3
6800.0	2.29	S76.37°W	6797.22	23.34	-122.59	123.98	0.5
6825.0	2.41	S70.57°W	6822.20	23.05	-123.57	124.94	1.1
6850.0	2.43	S69.16°W	6847.18	22.68	-124.56	125.90	0.3
6875.0	2.46	S70.03°W	6872.16	22.31	-125.56	126.87	0.2
6900.0	2.44	S69.01°W	6897.13	21.94	-126.56	127.84	0.2
6925.0	2.45	S70.22°W	6922.11	21.57	-127.56	128.81	0.2
6950.0	2.40	S68.19°W	6947.09	21.19	-128.55	129.77	0.4
6975.0	2.29	S67.84°W	6972.07	20.81	-129.50	130.68	0.4
7000.0	2.04	S63.47°W	6997.05	20.42	-130.36	131.51	1.2
7025.0	1.94	S58.89°W	7022.04	20.00	-131.12	132.24	0.8
7050.0	1.76	S53.83°W	7047.02	19.56	-131.79	132.88	1.0

SCIENTIFIC DRILLING INTERNATIONAL

Company : MARATHON OIL COMPANY Unit  
 Well Name : INDIAN HILLS #1  
 Location : EDDY COUNTY, NM

Page 8 of 8  
 Date 18 MARCH 1999  
 Filename : INDIAN#1

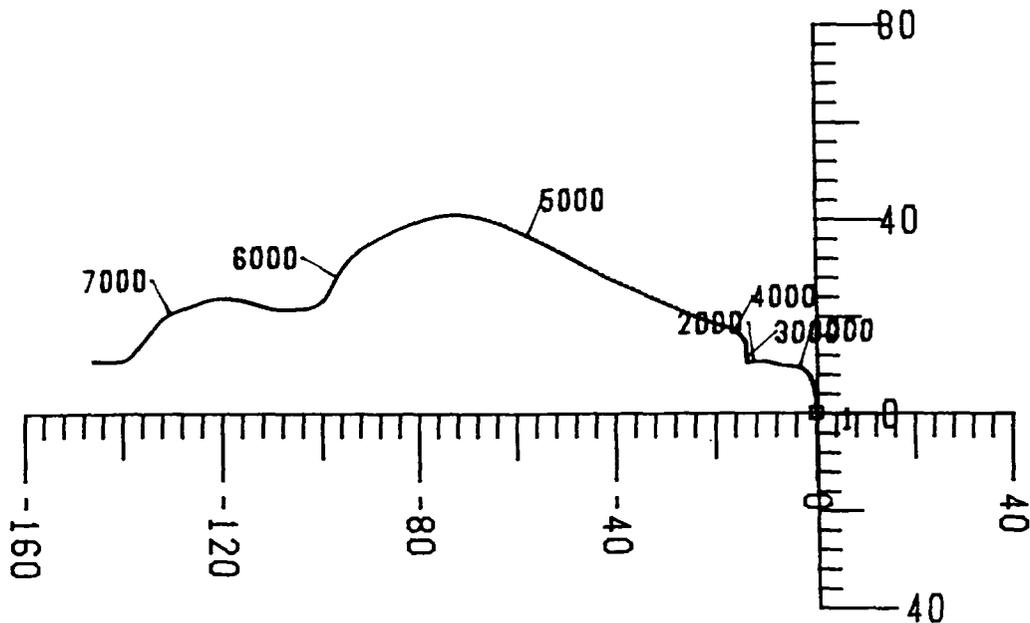
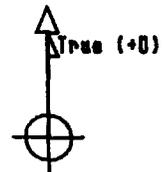
Vertical Interval :  
 Vertical Interval of WELLSITE Datum Above Field Datum 0.00 ft No Interpolation

MD ft	INC deg	DIR deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	D'LEG °/100
7075.0	1.67	S47.45°W	7072.01	19.09	-132.37	133.42	0.8
7100.0	1.59	S40.20°W	7097.00	18.58	-132.86	133.87	0.9
7125.0	1.46	S39.54°W	7121.99	18.06	-133.29	134.26	0.5
7150.0	1.57	S37.63°W	7146.98	17.55	-133.70	134.63	0.5
7175.0	1.53	S36.43°W	7171.97	17.01	-134.11	135.00	0.2
7200.0	1.46	S38.72°W	7196.96	16.49	-134.51	135.36	0.4
7225.0	1.52	S40.18°W	7221.96	15.99	-134.92	135.73	0.3
7250.0	1.47	S37.90°W	7246.95	15.48	-135.33	136.10	0.3
7275.0	1.49	S40.80°W	7271.94	14.98	-135.74	136.48	0.3
7300.0	1.60	S38.08°W	7296.93	14.46	-136.17	136.86	0.5
7325.0	1.59	S39.06°W	7321.92	13.92	-136.60	137.26	0.1
7350.0	1.54	S40.89°W	7346.91	13.40	-137.04	137.66	0.3
7375.0	1.37	S41.61°W	7371.90	12.92	-137.46	138.04	0.7
7400.0	1.45	S37.00°W	7396.90	12.44	-137.85	138.39	0.6
7425.0	1.37	S41.94°W	7421.89	11.97	-138.24	138.74	0.6
7450.0	1.33	S46.06°W	7446.88	11.54	-138.65	139.12	0.4
7475.0	1.28	S57.17°W	7471.88	11.19	-139.09	139.54	1.0
7500.0	1.35	S68.63°W	7496.87	10.93	-139.60	140.02	1.1
7525.0	1.41	S78.47°W	7521.86	10.76	-140.17	140.59	1.0
7550.0	1.48	S83.13°W	7546.85	10.66	-140.80	141.20	0.5
7575.0	1.62	S86.08°W	7571.85	10.60	-141.47	141.87	0.6
7600.0	2.01	N88.26°W	7596.83	10.59	-142.26	142.65	1.7
7625.0	2.18	N86.16°W	7621.81	10.64	-143.17	143.57	0.7
7650.0	2.36	N85.33°W	7646.80	10.71	-144.16	144.56	0.7
7675.0	2.36	N88.06°W	7671.77	10.77	-145.19	145.59	0.4
7700.0	2.41	N84.55°W	7696.75	10.84	-146.22	146.63	0.6

Origin of Bottom Hole Closure WELLSITE CENTRE  
 Bottom Hole Closure 147 ft N85.76°W



SCIENTIFIC DRILLING INTERNATIONAL  
FOR  
MARATHON OIL COMPANY  
INDIAN HILLS UNIT #1  
IN  
EDDY COUNTY, NM



Departure Scale 1 inch = 40 ft

Latitude Scale 1 inch = 40 ft



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**  
Governor  
**Jennifer A. Salisbury**  
Cabinet Secretary

**Lori Wrotenbery**  
Director  
Oil Conservation Division

July 19, 2001

**Marathon Oil Company**  
P. O. Box 552  
Midland, Texas 79702-0552

**Attention: Ginny Larke**  
**Engineering Technician**

**Re:** *Indian Hills Unit Well No. 1 (API No. 30-015-10066) location within Section 21, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico.*

Dear Ms. Larke:

Per my review of your letter dated June 21, 2001 concerning the official survey/resurvey of Section 21 as it relates to Marathon's Indian Hills Unit Well No. 1. Lets first address a couple of issues that really stand out in this matter.

- (1) What about the Indian Hills unit agreement, does it have 100% participation or not? *Yes - Sec. is a unit agreement - will explain*
- (2) Was this wellbore ever sidetracked and directionally drilled? If so, lets see a wellbore diagram, and directional survey and report. *will send.*

Sincerely

Michael E. Stogner  
Chief Hearing Officer/Engineer

cc: New Mexico Oil Conservation Division – Artesia



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**  
Governor  
**Jennifer A. Salisbury**  
Cabinet Secretary

August 22, 2001

**Lori Wrotenbery**  
Director  
**Oil Conservation Division**

**Marathon Oil Company**  
**P. O. Box 552**  
**Midland, Texas 79702-0552**

**Attention: Ginny Larke**

*Re: Administrative application for an unorthodox subsurface gas well location for Marathon Oil Company's Indian Hills Unit Well No. 1 (API No. 30-015-10066) location within Section 21, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico.*

Dear Ms. Larke:

This letter acknowledges the receipt of your administrative application dated August 15, 2001 for what appears to be an unorthodox subsurface gas well location in the Upper Pennsylvanian interval for Marathon Oil Company's existing Indian Hills Unit Well No. 1 (**API No. 30-015-10066**) in the SW/4 SW/4 (Unit M) of Section 21, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico. The Division received your latest correspondence on August 21, 2001, accepts it as an administrative application, and assigned it NMOCD application reference No. *pKRV0-123433433*. Please refer to this number in future correspondence with the Division.

Our preliminary review indicates that the information provided in the application is not sufficient to process an administrative order. The following information is necessary:

- (1) a true and correct copy of the latest NMOCD Form C-102 showing the dedicated acreage for this well and designated pool from which this well's production is attributed; and
- (2) a completed and signed "**Administrative Application Checklist**", which is now mandatory for such filings.

Since the submitted information is insufficient to review, the application was ruled as incomplete on August 22, 2001. Please submit the above stated information by Wednesday, August 29, 2001.

The Division cannot proceed with your application until the required information is submitted. Upon receipt, the Division will continue to process your application. The additional information can be faxed to (505) 476-3471, or mailed to the Division in Santa Fe. If the necessary information is not submitted, your application will be returned to you.

Should you have any questions concerning this matter, please contact me in Santa Fe at (505) 476-3465. Thank you.

Sincerely,

Michael E. Stogner  
Chief Hearing Officer/Engineer

cc: New Mexico Oil Conservation Division – Artesia  
W. Thomas Kellahin, Legal Counsel for Marathon Oil Company - Santa Fe





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**  
Governor  
**Jennifer A. Salisbury**  
Cabinet Secretary

August 22, 2001

**Lori Wrotenbery**  
Director  
**Oil Conservation Division**

**Marathon Oil Company**  
P. O. Box 552  
Midland, Texas 79702-0552

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Michael E. Stogner  
Chief Hearing Officer/Engineer

cc: New Mexico Oil Conservation Division - Artesia  
W. Thomas Kellahin, Legal Counsel for Marathon Oil Company - Santa Fe

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO
---------	----------	----------	-----------	------	--------

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

[1] **TYPE OF APPLICATION - Check Those Which Apply for [A]**

- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR

[2] **NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply**

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or.
- [F]  Waivers are Attached

[3] **INFORMATION / DATA SUBMITTED IS COMPLETE - Certification**

I hereby certify that I, or personnel under my supervision, have reviewed the applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common.

*I understand that any omission of data (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.*

Note. Statement must be completed by an individual with managerial and/or supervisory capacity.

K.W.Tatarzyn by  
 Print or Type Name  
 John Kloosterman

Signature

Asset Team Manager  
 Title

8/27/01  
 Date

\_\_\_\_\_  
 e-mail Address

DISTRICT I  
P.O. Box 1280, Hobbs, NM 88241-1280

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT II  
P.O. Drawer DD, Artisia, NM 88211-0719

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-10066	Pool Code 33685	Pool Name Indian Basin Upper Penn Associated Pool
Property Code 6409	Property Name INDIAN HILLS UNIT	Well Number 1
GRID No. 014021	Operator Name MARATHON OIL COMPANY	Elevation 3670

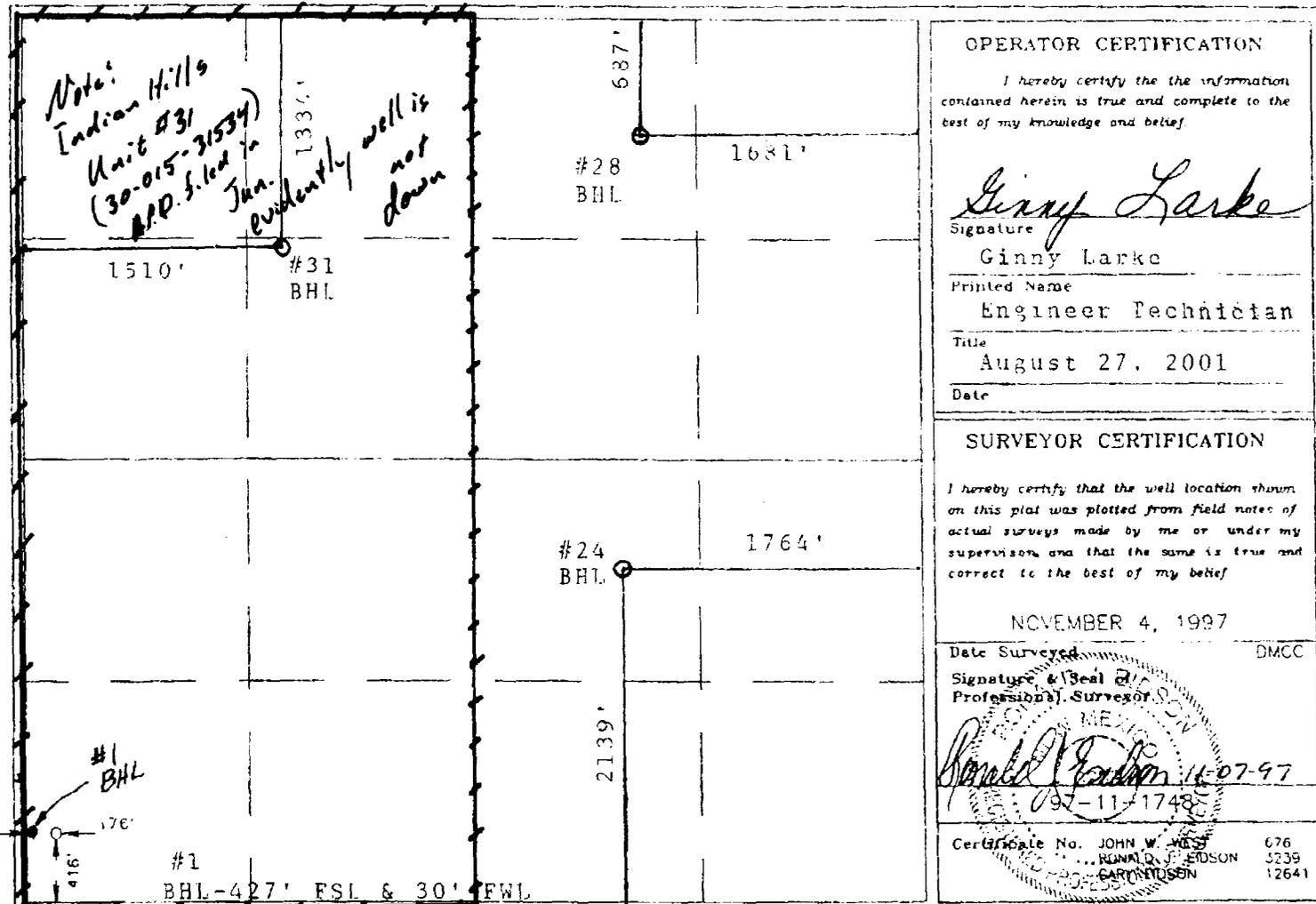
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	21	21 S	24 E		416	SOUTH	176	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	21	21-S	24-E		427	South	30'	West	Eddy
Dedicated Acres 320	Joint or Infill Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



Southern Business Unit  
Domestic Production



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

August 14, 2001

All Interest Owners of the Indian Hills Unit and Indian Hills Unit Gas Com I cases  
Certified Mail (Return Receipt Requested)

Re: Indian Hills Unit Well No. 1 Unorthodox Location

Dear Sir or Madam:

The Indian Hills Unit Well No. 1, API No. 30-015-10066, was drilled and completed in June, 1963. The location was originally surveyed November 21, 1962, by Joe Hewitt, Jr., at 660' FSL and 660' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico, please see attached copy of Form C-128. The well was plugged and the location abandoned in August, 1992. A decision was made to re-enter this well so the location was re-surveyed by Mr. Ronald J. Eidson, of John West Engineering, on November 4, 1997, see attached copy of Form C-102. According to information obtained from Mr. Eidson, the original survey of this area was done in 1882. The Federal Government ordered a re-survey of this area which was conducted from November 16, 1966 to January 12, 1967. Mr. Eidson said it took the surveyors two months to re-survey Section 21 and, in the process, the corners of this section were moved. Due to this re-survey, the legal description for this surface location is now 416' FSL and 176' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico.

When the well was re-entered in early 1998, Marathon did a blind kick to drill around some junk that was left in the hole when it was plugged in 1992. No directional survey was done at the time of the re-entry, however, in March, 1999, a survey was done by Scientific Drilling International. This survey shows that, after the blind kick was done, the bottom hole location of this well is now 427' FSL and 30' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico.

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Sincerely,

Ginny Larke  
Engineer Technician

Attachments

Signature: *Frank W. Podpechan*  
Printed Name: Frank W. Podpechan  
Title: President  
Company Name: Claremont Corporation  
Date: August 17, 2001

Southern Business Unit  
Domestic Production



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

RECEIVED AUG 15 2001

August 14, 2001

All Interest Owners of the Indian Hills Unit and Indian Hills Unit Gas Com Leases  
Certified Mail (Return Receipt Requested)

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Sincerely,

Ginny Larke  
Engineer Technician

Attachments

Signature: Tim G. Culp

Printed Name: Tim G. Culp

Title: Vice President

Company Name: Landem Energy Corporation

Date: August 22, 2001

AUG 17 2001

Southern U.S. Business Unit  
Domestic Production



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

August 14, 2001

All Interest Owners of the Indian Hills Unit and Indian Hills Unit Gas Com Leases  
Certified Mail (Return Receipt Requested)

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Sincerely,

*Ginny Larke*

Ginny Larke  
Engineer Technician

Attachments

Signature: *Dave Waters*

Printed Name: Dave Waters

Title: Senior Landman

Company Name: Texas Independent Exploration, Inc.

Date: 8/20/01

Southern U.S. Business Unit  
Domestic Production



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

August 14, 2001

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Sincerely,

*Ginny Larke*  
Ginny Larke  
Engineer Technician

Attachments:

Signature: *Robert G. Skelton*

Printed Name: *Robert G. Skelton*

Title: *Attorney-in-Fact*

Company Name: *Marathon Separation Company*

Date: *8/17/01*

Southern U.S. Business Unit  
Domestic Production



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

August 14, 2001

All Interest Owners of the Indian Hills Unit and Indian Hills Unit Gas Com Leases  
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Sincerely,

Ginny Larke  
Engineer Technician

Attachments

Signature: Robert G. Hanagan  
Printed Name: ROBERT G. HANAGAN  
Title: Partner  
Company Name: Hanagan Properties  
Date: 8/16/01

Southern U.S. Business Unit  
Domestic Production



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

August 14, 2001

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Sincerely,

*Ginny Larke*  
Ginny Larke  
Engineer Technician

Attachments

Signature: *Nolan Branson*  
Printed Name: NOLAN BRANSON  
Title: \_\_\_\_\_  
Company Name: \_\_\_\_\_  
Date: 8/16/01

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services. Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1.  Addressee's Address
- 2.  Restricted Delivery

Hugh Hanagan  
 P.O. Box 329  
 Roswell, NM 88210-0329

4a. Article Number  
7099 3400 0016 0716 2619

- 4b. Service Type
- Registered  Certified
  - Express Mail  Insured
  - Return Receipt for Merchandise  COD

7. Date of Delivery  
8/16/01

8. Addressee's Address (Only if requested and fee is paid)

9. Received by (Print name)

6. Signature (Addressee or Agent)

*X. Hanette Hanagan*

PS Form 3811, December 1994

102595-99-B-0223 Domestic Return Receipt

Thank you for using Return Receipt Service.

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

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Postage & Fees

Registered Fee (Enclosure not required)

Restricted Delivery Fee (Enclosure not required)

Total Postage & Fees \$

Recipient's Name *Hugh Hanagan*

Street Address *PO Box 329*

City/State/Zip



Southern Business Unit  
Domestic Production



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

August 14, 2001

All Interest Owners of the Indian Hills Unit and Indian Hills Unit Gas Com Leases  
Certified Mail (Return Receipt Requested)

Re: Indian Hills Unit Well No. 1 Unorthodox Location

Dear Sir or Madam:

The Indian Hills Unit Well No. 1, API No. 30-015-10066, was drilled and completed in June, 1963. The location was originally surveyed November 21, 1962, by Joe Hewitt, Jr., at 660' FSL and 660' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico, please see attached copy of Form C-128. The well was plugged and the location abandoned in August, 1992. A decision was made to re-enter this well so the location was re-surveyed by Mr. Ronald J. Eidson, of John West Engineering, on November 4, 1997, see attached copy of Form C-102. According to information obtained from Mr. Eidson, the original survey of this area was done in 1882. The Federal Government ordered a re-survey of this area which was conducted from November 16, 1966 to January 12, 1967. Mr. Eidson said it took the surveyors two months to re-survey Section 21 and, in the process, the corners of this section were moved. Due to this re-survey, the legal description for this surface location is now 416' FSL and 176' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico.

When the well was re-entered in early 1998, Marathon did a blind kick to drill around some junk that was left in the hole when it was plugged in 1992. No directional survey was done at the time of the re-entry, however, in March, 1999, a survey was done by Scientific Drilling International. This survey shows that, after the blind kick was done, the bottom hole location of this well is now 427' FSL and 30' FWL, Section 21, T-21-S, R-24-E, Eddy County, New Mexico.

No application for an unorthodox location was ever filed after the re-survey or prior to the re-entry of this well. This letter is to inform you, as an offset interest owner, that Marathon has filed an application for this unorthodox location with the Oil Conservation Division in Santa Fe, New Mexico. If you have an objection to Marathon's application, you have 20 days from the date of this letter to file your objection with the Oil Conservation Division office in Santa Fe, New Mexico. If you have no objection, please sign one copy in the space provided and return to me in the enclosed envelope. If you have questions or need further information, please call me at 915-687-8321.

Sincerely,

*Ginny Larke*

Ginny Larke  
Engineer Technician

Attachments

Signature: *Hugh Hagan*

Printed Name: Hugh Hagan

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Date: 8/27/01

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION - Check Those Which Apply for [A]**

- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR

[2] **NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply**

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SIO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **INFORMATION / DATA SUBMITTED IS COMPLETE - Certification**

I hereby certify that I, or personnel under my supervision, have reviewed the applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common.

*I understand that any omission of data (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.*

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

K.W. Tatarzyn  
 Print or Type Name

Signature

Asset Team Manager  
 Title

8/27/01  
 Date

e-mail Address



NEW MEXICO ENERGY, MINERALS and  
NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON  
Governor  
Jennifer A. Salisbury  
Cabinet Secretary

August 30, 2001 - 6 PM 12:36  
OIL CONSERVATION DIVISION

Lori Wrotenbery  
Director  
Oil Conservation Division

Marathon Oil Company  
P. O. Box 552  
Midland, Texas 79702-0552

Attention: Ginny Larke

Re: *Administrative application for an unorthodox subsurface gas well location for Marathon Oil Company's Indian Hills Unit Well No. 1 (API No. 30-015-10066) location within Section 21, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico.*

Dear Ms. Larke:

This letter acknowledges the receipt of your supplemental data to this application (*NMOCD application reference No. pKRV0-123433433*) that was submitted on August 29, 2001.

Unfortunately you submitted the Division's old "**Administrative Application Coversheet**", which is no longer applicable. This supplemental information is still not sufficient in order for the Division to process an administrative order. The following information is necessary:

A completed and signed new and improved  
"**Administrative Application Checklist**".

Since the submitted supplemental information is insufficient, the application remains incomplete as on August 30, 2001. Please submit the above stated information by Monday, September 10, 2001.

The Division cannot proceed with your application until the required information is submitted. Upon receipt, the Division will continue to process your application. The additional information can be faxed to (505) 476-3471, or mailed to the Division in Santa Fe. If the necessary information is not submitted, your application will be returned to you.

Should you have any questions concerning this matter, please contact me in Santa Fe at (505) 476-3465. Thank you.

Sincerely,

Michael E. Stogner  
Chief Hearing Officer/Engineer

cc: New Mexico Oil Conservation Division – Artesia  
W. Thomas Kellahin, Legal Counsel for Marathon Oil Company - Santa Fe

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

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- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]  
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 NSL  NSP  SD
- Check One Only for [B] or [C]  
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 DHC  CTB  PLC  PC  OLS  OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR
- [D] Other: Specify \_\_\_\_\_
- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply  
 [A]  Working, Royalty or Overriding Royalty Interest Owners  
 [B]  Offset Operators, Leaseholders or Surface Owner  
 [C]  Application is One Which Requires Published Legal Notice  
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U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office  
 [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,  
 [F]  Waivers are Attached
- [3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note: Statement must be completed by an individual with managerial and/or supervisory capacity.**

K. W. Tatarzyn      [Signature]      Asset Team Manager      9/4/01  
 Print or Type Name      Signature      Title      Date

\_\_\_\_\_  
 e-mail Address



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**  
Governor  
**Jennifer A. Salisbury**  
Cabinet Secretary

August 30, 2001

**Lori Wrotenbery**  
Director  
Oil Conservation Division

**Marathon Oil Company**  
**P. O. Box 552**  
**Midland, Texas 79702-0552**

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